

IN THE IOWA DISTRICT COURT FOR POLK COUNTY

JOE COMES, RILEY PAINT, INC.,	:	NO. CL82311
an Iowa corporation, SKEFFINGTON'S		
FORMAL WEAR OF IOWA, INC., an Iowa	:	
corporation, PATRICIA ANNE LARSEN, and		
MIDWEST COMPUTER REGISTER CORP.,	:	
an Iowa Corporation,	:	
 Plaintiffs,	:	
 vs.	:	[MODIFIED PROPOSED]
		FOURTH AMENDED PETITION
MICROSOFT CORPORATION,	:	
a Washington corporation,	:	
 Defendant.	:	

Plaintiffs, for their Class Action Complaint, by and through counsel, on behalf of themselves and all others similarly situated, on information and belief formed after an inquiry reasonable under the circumstances, allege against Microsoft Corporation ("Microsoft"), as follows:

SUMMARY OF THIS ACTION

1. Plaintiffs bring this class action under the laws of Iowa for damages sustained as a result of Microsoft's anti-competitive and monopolistic practices in the conduct of trade or commerce. Specifically, Plaintiffs challenge those practices that Microsoft used—and continues to use—to prevent and destroy competition and to unlawfully acquire and maintain monopoly power. Microsoft has restricted trade in the relevant software markets, resulting in substantial harm both to competition and to the ultimate consumers in those markets.

2. Microsoft used its illegal monopoly power to raise prices to supra-competitive levels in the following product markets:

- a. the licensing of Intel-compatible personal computer ("PC") operating system software; and
- b. the licensing of Intel-compatible PC applications software, including word processing and spreadsheet software.

3. These claims are prosecuted by two Classes: the "Microsoft Operating Systems Software Class," which consists of Iowa indirect purchasers of Microsoft MS-DOS or Windows operating system software; and the "Microsoft Applications Software Class," which consists of Iowa indirect purchasers of Microsoft applications software, including Word and Excel, that is compatible with Microsoft operating system software. The particular Microsoft products included in these Classes are set forth below.

4. The purpose and effect of Microsoft's illegal conduct has been to deny purchasers of Microsoft operating systems and applications software at a competitive price and free choice among competing software products, as well as to deny them the benefit of software innovation. The lack of free choice and the denial of benefits of software innovation include, *inter alia*: (a) Microsoft's products purchased by Plaintiffs and Class members would have been technologically superior to those actually purchased in the absence of its illegal conduct; (b) Plaintiffs and Class members were damaged by virtue of the fact that Microsoft increased end user license agreement restrictions after gaining monopoly power; and (c) Plaintiffs were damaged because of the degradation of their computers caused by Microsoft's products which included problems such as drained memory, decreased speed, and an increased incidence of security breaches and bugs. Microsoft's illegal conduct has stifled, and continues to stifle,

innovation, variety, quality and safety of computer software, and unreasonably and significantly limited the choices of Iowa consumers.

5. As indirect purchasers of the relevant Microsoft software, Plaintiffs and Class members are therefore entitled to recover damages for the difference between a competitive price for the relevant software and the monopoly price that they paid for Microsoft's products and for their injury from the lack of free choice and the denial of benefits of software innovation and for damages for breaches of security by reason of Microsoft's illegal conduct.

JURISDICTION AND VENUE

6. This Court has jurisdiction pursuant to the Iowa Competition Law, Iowa Stat. § 553.1 *et seq.* This Court also has jurisdiction pursuant to Iowa Stat. § 617.3 over Microsoft because Microsoft is authorized to conduct—and in fact does conduct—substantial business in the State of Iowa. Microsoft has sufficient minimum contacts with Iowa, or otherwise intentionally avails itself of the consumer markets within Iowa through the promotion, sale, marketing and/or distribution of its products in Iowa, to render the exercise of jurisdiction by the Iowa courts permissible under traditional notions of fair play and substantial justice.

7. This complaint is not based upon federal law or any federal question. No claim for relief is made under federal law. The amount in controversy for each named class representative and each absent class member does not exceed, inclusive of interest, fees and costs, the sum or value of \$75,000. As the federal courts do not have subject matter jurisdiction over the claims asserted herein, this action is not subject to removal under 28 U.S.C. § 1441.

8. Venue is proper in this county, pursuant to Iowa Stat. § 616.14 as the acts upon which this action is based occurred in part in this county. Certain of the named Plaintiffs and numerous Class members reside in this county, and purchased Microsoft operating system

software and applications software (and were thereby injured) in this county. Microsoft received substantial compensation and profits from sales of such products in this county, and therefore Microsoft's liability arose in part in this county.

THE PARTIES

9. Plaintiff Joe Comes is a citizen and resident of Polk County, Iowa. Mr. Comes purchased a Gateway Solo Computer directly from Gateway, Inc. The computer came with Microsoft Windows 98, Microsoft Word, and Microsoft Excel pre-installed.

10. Plaintiff Riley Paint, Inc. is a for-profit corporation organized and existing under the laws of the State of Iowa, with its principal place of business in Burlington, Iowa. Over the years, Riley Paint has purchased relevant versions of Microsoft operating systems and applications software either pre-installed on Intel-compatible PCs or otherwise.

11. Plaintiff Skeffington's Formal Wear of Iowa, Inc. is a for-profit corporation organized and existing under the laws of the State of Iowa, with its principal place of business in Des Moines, Iowa. Over the years, Skeffington's has purchased relevant versions of Microsoft's operating systems and applications software either pre-installed on Intel-compatible PCs or otherwise.

12. Plaintiff Patricia Anne Larsen is a citizen and resident of Clay County, Iowa. Ms. Larsen has purchased relevant versions of Microsoft operating systems and relevant applications software either pre-installed on Intel-compatible PCs or otherwise.

13. Plaintiff Midwest Computer Register Corp. is a for-profit corporation organized and existing under the laws of the State of Iowa, with its principal place of business in Hampton, Iowa. Over the years, Midwest Computer has purchased relevant versions of Microsoft operating systems and applications software either pre-installed on Intel-compatible PCs or

otherwise.

14. Defendant Microsoft is a for-profit corporation organized and existing under the laws of the State of Washington. Microsoft's principal place of business is located at One Microsoft Way, Redmond, Washington. Since its inception, Microsoft has focused primarily on developing and licensing computer software. Microsoft is the leading supplier of operating systems, word processing, spreadsheet, and office suite software for personal computers. Microsoft operating system software is pre-installed on more than ninety percent of all new Intel-compatible PCs sold. Microsoft markets and licenses personal computer operating system software for personal computers throughout the United States, including the State of Iowa. Microsoft is authorized to conduct—and in fact does conduct—substantial business in Iowa. The facts regarding Microsoft that are set forth below had a direct effect in the State of Iowa as to monopoly price that Plaintiffs and all others similarly situated individuals paid as end user licensees of Microsoft operating system and applications software.

CLASS ACTION ALLEGATIONS

15. Plaintiffs bring this action pursuant to Iowa Rules of Civil Procedure 1.261 on behalf of themselves and on behalf of the two Classes identified below.

16. The “Microsoft Operating Systems Software Class” consists of Iowa indirect purchasers of Microsoft operating system software. For purposes of this class, “Microsoft operating system software” means any full or upgrade version of Microsoft MS-DOS Windows operating system software intended for use on Intel-compatible personal computers including, without limitation, MS-DOS, Windows 3.1, Windows for Workgroups 3.11, Windows 95, Windows 98, Windows 98 Second Edition, Windows Millennium Edition (Windows Me), Windows NT Workstation 3.5, Windows NT Workstation 4.0, Windows 2000 Professional,

Windows XP Professional and Windows XP Home Edition, and Windows XP Media Center Edition operating system software. For purposes of this class, "Microsoft Operating Systems Software Class" means a person or entity who, at the time of purchase, resided in or was incorporated in Iowa who, on or after May 18, 1994, was an indirect purchaser of Microsoft operating system software, and who did not purchase Microsoft operating system software for the purpose of resale.

17. The "Microsoft Applications Software Class" consists of Iowa indirect purchasers of Microsoft applications software which is compatible with Microsoft operating system software. For purposes of this class "Microsoft applications software" means any full or upgrade version of Microsoft Word or Microsoft Excel, or any software in which Word or Excel are included in whole or in part, such as Microsoft Office or Microsoft Works Suite. For purposes of this class, "Microsoft Applications Software Class" means a person or entity who at the time of purchase resided in or was incorporated in Iowa who, on or after May 18, 1994, was an indirect purchaser of Microsoft applications software and who did not purchase such Microsoft applications software for the purpose of resale.

18. Both Classes exclude Microsoft and its co-conspirators, their parents, subsidiaries, affiliates, officers, directors and employees. Also excluded are any federal, state or local governmental entities, and any judge or judicial officer presiding over this matter, judicial staff, and the members of their families.

19. The named Plaintiffs, as indirect purchasers of Microsoft operating systems software, are representatives of an ascertainable class (Microsoft Operating Systems Software Class) that is comprised of Iowa indirect purchasers of Microsoft operating system software on or after May 18, 1994, and who did not purchase the software for the purpose of resale.

20. The named Plaintiffs, as indirect purchasers of Microsoft Word or Excel (Microsoft Applications Software Class) are representative of an ascertainable class (Microsoft Applications Software Class) that is comprised of Iowa indirect purchasers of Microsoft applications software who purchased their Microsoft software on or after May 18, 1994, and who did not purchase it for the purpose of resale.

21. Plaintiffs are informed and believe (and on that basis allege) that the memberships of the two Classes likely number in the hundreds of thousands of individuals and businesses, the exact number being known to Microsoft. The Classes are therefore so numerous that joinder of all members is impracticable. Joinder is also impracticable because of the geographic diversity of the members of the Classes and because of the need to expedite judicial relief.

22. There are questions of law and fact common to each of the Classes. Such common questions include, but are not limited to:

- a. whether Microsoft has, at all relevant times, possessed monopoly power in the markets for Intel-compatible PC operating systems, word processing and spreadsheet software;
- b. whether Microsoft unlawfully and willfully obtained—and has unlawfully and willfully maintained—its monopoly power by anti-competitive and exclusionary conduct;
- c. whether the alleged conduct by Microsoft violates the Iowa Competition Law, Chapter 553, Code of Iowa, 1997;
- d. whether Microsoft's unlawful conduct has caused legally cognizable injury to each Class by increasing, maintaining, or stabilizing the prices that Plaintiffs and the Class members have paid for Microsoft software above competitive levels

and/or by denying them a free choice in a competitive market, as well as the benefits of software innovation;

- e. whether Microsoft unlawfully tied its browser, Microsoft Internet Explorer, with the Windows software; and
- f. whether Plaintiffs and the Class members are entitled to damages for their injuries.

23. There is a well-defined community of interest in the questions of law and fact involved concerning the parties to be represented. The named Plaintiffs' claims are typical of the claims of absent Class members. Their claims fairly encompass the claims of absent class members. Moreover, the named Plaintiffs and absent Class members are similarly situated and have been harmed by the same course of unlawful conduct alleged herein.

24. It is further appropriate to proceed with this action on behalf of the Classes because:

- a. the prosecution of separate actions by individual members of the Classes would create a risk of inconsistent or varying adjudications with respect to individual members of the Classes which would establish incompatible standards of conduct for Microsoft;
- b. as a practical matter, adjudications with respect to individual members of the Classes would be dispositive of the interests of the other members not parties to the adjudications, and/or would substantially impair or impede their ability to protect their interests; and
- c. the questions of law and fact common to the members of the Classes predominate over any questions affecting only individual members, and a class action is

superior to other available methods for the fair and efficient adjudication of this action.

25. Plaintiffs have retained lawyers who are experienced litigators. Included in the group is very substantial class action experience and expertise. The lawyers have agreed to advance the costs of the out-of-pocket expenses of this litigation and have the ability to do so.

DEFINITIONS

The following definitions are provided to explain terms used herein:

26. “Applications” are software programs that perform specific user-oriented tasks. For example, Microsoft Word word processing software and Microsoft Excel spreadsheet software are applications. Applications programs are typically written to run on a particular operating system and cannot run on other operating systems unless the developer “ports” the program to the other operating system.

27. “Application Programming Interfaces” or “APIs” are hooks through which the developer of an application can connect to code in an operating system or other software program to allow the application program to use the services of that operating system or program.

28. A “Browser” is a software application that allows a user to navigate the Internet and to select, retrieve and view information located on the World Wide Web.

29. “Conclusions of Law” are the legal conclusions dated April 3, 2000 by the District Court in *United States v. Microsoft Corp.*, Civ. No. 98-1232 and Civ. No. 98-1233 (D. D.C.), as affirmed in part by the United States Court of Appeals for the District of Columbia Circuit. *See United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000), *aff’d in part*, 253 F.3d 34 (D.C. Cir. 2001).

30. “Findings of Fact” are the findings dated November 5, 1999 by the District Court in *United States v Microsoft Corp.*, 84 F. Supp. 2d 9 (D.D.C. 1999). These Findings of Fact are incorporated herein as if here fully set forth.

31. “Graphical User Interface” or “GUI” is a type of environment that represents programs, files, and options by means of icons, menus, and dialog boxes on the screen. The user can select and activate these options by pointing and clicking with a mouse or, often, with the keyboard. GUI’s have characteristics of both application and operating system software.

32. “Independent Software Vendors” or “ISVs” are firms (including Microsoft) that develop applications and other software. They are "independent" in as much as they are not part of a vertically integrated hardware and software company (e.g., Apple Computer, which manufactures Macintosh computers and also develops the MacOS operating system software).

33. An “Intel-compatible PC” is a computer designed to function with Intel’s x86 families of microprocessors or with compatible microprocessors manufactured by Intel or other firms (e.g. Advanced Micro Devices or VIA Technologies). Microsoft’s Windows operating system is an example of an operating system that runs on x86-compatible PCs. Operating systems designed to run on x86-compatible PCs will not function on PCs designed around other microprocessor architectures, such as Macintosh computers (which use Motorola and IBM PowerPC processors), nor will an operating system designed for a non-x86-compatible PC function on an x86-compatible one.

34. The “Internet” is a global electronic network that links many millions of computing devices together, allowing the computers to exchange information over telephone wires, dedicated data cables, and wireless links. The Internet links PCs by means of servers, which run operating systems and applications designed for servicing a network environment.

35. “Internet Access Providers” or “IAPs” are commercial firms that connect users, companies and other organizations to the Internet. PCs typically connect to the Internet through the services of IAPs, which generally charge subscription fees to their customers in the United States.

36. “Internet Content Providers” or “ICPs” are persons or companies that provide content on the Web. The content consists principally of web pages that may incorporate any combination of text, graphics, audio and video content, software programs, and other data.

37. “Internet Service Providers” or “ISPs” are a type of Internet Access Provider, such as Earthlink or Speakeasy that offer Internet access.

38. “Middleware” is software that “sits” between two or more types of software and translates information between them. Middleware generally sits between an application and an operating system, and takes advantage of the APIs of the underlying operating system while also exposing its own APIs for applications that run on top of the middleware.

39. An “On-line Service” or “OLS” generally offers access to an online community of users along various services and an array of proprietary content and, optionally, Internet access. America Online (“AOL”) and the Microsoft Network (“MSN”) are two examples.

40. An “operating system” is software that controls the allocation and use of computer resources (such as central processing unit time, main memory space, disk space, and input/output channels). In a personal computer, the operating system allows the various components of the PC to communicate and function with each other. It also acts as a “platform” to support the functions of software application programs.

41. “Original Equipment Manufacturers” or “OEMs” are companies whose business may include the manufacture, assembly, development and sale of personal computers (e.g., Dell,

Gateway, and Hewlett Packard/Compaq). OEMs typically purchase hardware components (e.g., processors, motherboards, hard drives, graphics cards) from various third-party vendors and assemble those components into PCs. OEMs also generally preinstall software on their systems, including an operating system and often times applications software as well.

42. A “personal computer” (“PC”) is a digital information processing device designed for use by one person at a time. A typical PC consists of central processor components (e.g. a microprocessor and main memory) and mass data storage (such as a hard disk) along with certain peripheral input/output devices (including a monitor, a keyboard and mouse) and an operating system.

43. “Platform” is used in the software industry to describe software that provides features or services that can be used by software applications. Applications typically "run on top" of the operating system and draw upon the services that the operating system's "platform" provides.

44. The “World Wide Web” or “Web” is a massive collection of digital information resources stored on servers throughout the Internet.

45. A “Web client” is software that, when running on a computer connected to the Internet, sends information to and receives information from Web servers throughout the Internet. Web clients and servers transfer data using a standard known as the Hypertext Transfer Protocol ("HTTP").

46. A “Web browser” is a type of Web client that enables a user to select, retrieve, and perceive resources on the Web. In particular, Web browsers provide a way for a user to view hypertext documents and follow the hyperlinks that connect them, typically by moving the cursor over a link and depressing the mouse button. Although certain Web browsers provided

graphical user interfaces as far back as 1993, the first widely popular graphical browser distributed for profit, called Navigator, was brought to market by the Netscape Communications Corporation in December 1994. Microsoft introduced its browser, called Internet Explorer, in July 1995.

RELEVANT MARKETS

The Relevant Product Markets

47. At all material times, Microsoft has had monopoly power in the following product markets:

- a. The licensing of Intel-compatible personal computer ("PC") operating system software; and
- b. The licensing of Intel-compatible PC applications systems software, including word processing, spreadsheet, and office suite software.

The Relevant Geographic Market

48. At all material times, the relevant geographic market for the class action claims asserted for the relevant product markets is the State of Iowa.

Intel-Compatible PC Operating System Software

49. For the purposes of this action, the Intel-compatible PC operating system software market consists of operating systems for use on PCs based on Intel's x86/Pentium family of processors. At all relevant times, no other product has duplicated or fully substituted for the operating system.

50. Throughout the Class Period (May 18, 1994 to the date of trial), Microsoft has marketed a variety of personal computer operating systems, including but not limited to MS-DOS, Windows 3.1, Windows 3.11 for Workgroups, Windows NT 3.5 Workstation, Windows

95, Windows 98, Windows 98 SE, Windows NT 4.0 Workstation, Windows Me, Windows 2000 Professional, Windows XP Home and Windows XP Professional.

51. Because of the complex interactions between operating system software, applications software and the hardware components of a personal computer, an operating system written for one microprocessor architecture typically will not work on another class of microprocessor without significant modification. Accordingly, OEMs and personal computer users do not consider an operating system that runs a non-Intel-compatible PC to be an effective substitute for an operating system that runs an Intel-compatible PC.

52. The inability of server operating systems, non-Intel compatible PC operating systems, information appliances, network computers, server-based computing and middleware generally to provide a reasonable substitute for Microsoft's operating systems or to discipline its monopoly power is set forth in the Findings of Fact at ¶¶ 19-32. It would be prohibitively expensive for a new Intel-compatible operating system to attract enough developers and consumers to become a viable alternative to a dominant incumbent in less than a few years. Findings of Fact at ¶ 31.

53. Microsoft distributes its operating system software through two different channels: the OEM channel and the "finished goods" channel. (On information and belief, Microsoft does not recognize any other channels in its day-to-day business activities.) The overwhelming majority of Microsoft's operating systems software is distributed through the OEM channel. In 1997, for example, the OEM channel accounted for 87.6 percent of all copies of Windows operating system software sold that year. Because a personal computer can perform virtually no useful tasks without an operating system, OEMs consider it a commercial necessity to install operating system software on nearly all of the PCs they sell. Moreover, OEMs and

Microsoft both recognize that sellers of Intel-compatible PCs have no commercially viable substitute for Windows. For example:

- a. a Packard Bell executive testified in the most recent government antitrust action against Microsoft (detailed further below) that there was no commercially feasible operating system alternative to Windows 98;
- b. a Micron PC executive asserted in the same action: “I am not aware of any other non-Microsoft operating system software product to which Micron could or would turn as a substitute for Windows 95 at this time”;
- c. a Hewlett-Packard executive testified in the government action that “[a]bsolutely there’s no choice” except to install Windows on Hewlett-Packard’s personal computers; and
- d. a Gateway executive testified in that action that Gateway had to install Windows because “[w]e don’t have a choice.” This same executive also testified that a commercially viable alternative to Windows “would drive prices lower” and promote innovation.
- e. Because there is no realistic commercial alternative to Microsoft operating systems for Intel-compatible PCs, OEMs consider it—and have considered it at all relevant times—a necessity to install MS DOS or Windows on nearly all of their PCs.

Relevant Market for Intel-Compatible PC Word Processing Software

54. For purposes of this action, the relevant market for Intel-compatible PC word processing software consists of applications software for performing word processing functions which runs on Microsoft operating systems. At all relevant times, no other product has

duplicated or fully substituted for word processing software.

55. Microsoft sells Microsoft Word largely as part of Microsoft's "Works" and "Office" software suites. Some personal computer end users also demand word processing software separately for installation on their personal computer at the time of purchase. As with Microsoft's operating systems software, Microsoft Word reaches end users through the OEM and finished goods channels.

Relevant Market for Intel-Compatible PC Spreadsheet Software

56. For purposes of this action, the relevant market for Intel-compatible spreadsheet software consists of applications software for performing spreadsheet functions which runs on Microsoft operating systems. At all relevant times, no other product has duplicated or fully substituted for spreadsheet software.

57. Microsoft sells Microsoft Excel largely as part of Microsoft's Office software suite. Some personal computer end users also demand spreadsheet software separately for installation on their personal computer at the time of purchase. As with Microsoft's operating systems and word processing software, Microsoft Excel reaches end users through the OEM and finished goods channels.

MICROSOFT'S MONOPOLY POWER IN THE RELEVANT MARKETS

Microsoft's Monopoly Power in the Operating Systems Market

58. Since the mid-1980s, Microsoft has dominated the operating system software market. For example, in the United States, its market share at times has exceeded 95 percent. Beginning in the late-1980s and continuing through the present, Microsoft engaged in a series of predatory acts designed to, and which did, eliminate competition and prevent entry in the operating system market. Software companies offering superior operating systems and/or lower

prices, namely, Digital Research, Inc. (“Digital Research”) and International Business Machines (“IBM”), were not able to compete with Microsoft because of Microsoft’s unlawful conduct. Microsoft has had no significant competitor in the operating system market since Digital Research and IBM were eliminated as meaningful competitors in 1994. In addition, Microsoft has possessed a dominant and persistent share of the Iowa market for Intel-compatible PC operating system software. During most of the Class Period, Microsoft’s share of this market has been at least 95 percent (extrapolating from Microsoft’s share of the United States market for Intel-compatible PC operating system software).

59. Throughout the Class Period, Microsoft has had monopoly power in the relevant market for operating systems. Findings of Fact of ¶ 33. Microsoft can and has exercised this power by charging a price for its Intel-compatible PC operating system software that is substantially above that which could be charged in a competitive market, and it can and has done so for a significant period of time without losing business to competitors.

Microsoft’s Monopoly Power in the Word Processing Applications Market

60. Microsoft has possessed a dominant, persistent and increasing share of the Iowa market for Intel-compatible PC word processing applications software through its Microsoft Word product, which is most often bundled in its Office suite. By the mid-1990s, Microsoft’s share of that market in the United States exceeded 90%. Microsoft’s market share in Iowa is similar, on information and belief.

61. It would be prohibitively expensive for new Intel-compatible word processing applications software to attract enough consumers to become a viable alternative to a dominant incumbent in less than a few years.

62. Throughout the Class Period, Microsoft has had monopoly power in the relevant

market for word processing applications software. Microsoft can and has exercised this power by charging a price for its Intel-compatible PC word processing applications software that is substantially above that which could be charged in a competitive market, and it can and has done so for a significant period of time without losing business to competitors.

Microsoft's Monopoly Power in the Spreadsheet Applications Market

63. Microsoft has possessed a dominant, persistent and increasing share of the Iowa market for Intel-compatible PC spreadsheet applications software through its Microsoft Excel product, which is most often bundled in its Office suite. By the mid-1990s, Microsoft's share of that market in the United States exceeded 90%. Microsoft's market share in Iowa is similar, on information and belief.

64. It would be prohibitively expensive for new Intel-compatible spreadsheet applications software to attract enough consumers to become a viable alternative to a dominant incumbent in less than a few years.

65. Throughout the Class Period, Microsoft has had monopoly power in the relevant market for spreadsheet applications software. Microsoft can and has exercised this power by charging a price for its Intel-compatible PC spreadsheet applications software that is substantially above that which could be charged in a competitive market, and it can and has done so for a significant period of time without losing business to competitors.

SOFTWARE DISTRIBUTION SYSTEM

66. Microsoft considers its software to be its exclusive intellectual property. Consequently, as stated by Microsoft, it "does not technically 'sell' the software to anyone." Rather, it "licenses the software for specified purposes only." Affidavit of Robert Vellone, dated March 24, 2000, filed in *Precision Billing Services, Inc. v. Microsoft Corp.*, No. 99-896-GPM

(S.D. Ill.), ¶ 6. With regard to operating system software, Microsoft grants licenses to OEMs that permit them to pre-install it on PCs sold to end-users, while Microsoft grants different licenses to end-users that permit them to use the software on the PCs they purchase. The terms of Microsoft's written licenses are dictated and drafted solely by Microsoft.

67. Microsoft distributes its software licenses in the United States and worldwide through multiple channels. Early on, Microsoft recognized the OEMs, such as Dell and Compaq, as the single, most important channel for distribution of operating system and applications software licenses. Microsoft intentionally used its monopoly power in the operating system market to capture, dominate, and exclusively control the OEM distribution channel to the exclusion of ISVs. As a result, Microsoft's captive OEM channel functions as Microsoft's distributor for the large majority of all Microsoft operating system licenses with end-users of PCs. The remainder of Microsoft's software licenses are offered to end-users through retailers, such as CompUSA and Staples, other distributors and resellers, and Microsoft itself.

68. Microsoft has used its monopoly in the operating system market to dictate the terms and conditions under which OEMs are engaged, on Microsoft's behalf and as Microsoft's agent, to communicate Microsoft's offers of end-user licenses to purchasers of PCs. OEMs have no choice but to accede to Microsoft's demands. Because of Microsoft's monopoly, both the OEMs and Microsoft believe that there does not exist a single, commercially viable alternative to the pre-installation of Microsoft operating systems on PCs manufactured and sold by OEMs. *Conclusions of Law*, 87 F. Supp. 2d at 37. Because OEMs have no other viable choice, Microsoft effectively forced OEMs to pre-install Microsoft operating systems on their PCs and to jointly act with Microsoft to offer end-user licenses for acceptance or rejection by customers under terms strictly and exclusively dictated by Microsoft. As an example of Microsoft's

domination and control of the OEM distribution channel, Microsoft strictly limits the freedom of OEMs to add to, delete from, or modify the operating system, its start-up sequence, or the content and appearance of the Windows desktop.

69. End-users can acquire Microsoft software licenses from the company by calling a 1-800 telephone number or accessing Microsoft's Internet Web site at "shop.microsoft.com."

70. End-users were the targets and foreseeable victims of Microsoft's anti-competitive conduct alleged herein and have paid artificially-inflated prices for Microsoft's software licenses. Microsoft requires end-users who obtain Microsoft software pre-installed on a personal computer to enter into an end-user license agreement with Microsoft. Microsoft dictates the terms of agreements under which distributors and retailers are engaged, on Microsoft's behalf and as Microsoft's agent, to communicate Microsoft's offers of end-user licenses. These agreements provide, among other things, for a refund to be paid to the end-user of the cost of the operating system or applications software, as the case may be, if the end-user declines to enter into Microsoft's required license. The license also provides significant restrictions on the use of the software by the licensee and grants Microsoft certain rights and remedies against the licensee for breach of the license agreement.

71. Contrary to software industry practice and what had been Microsoft's practices prior to the Class Period, end-users who purchased new PCs through the OEM distribution channel during the Class Period were anti-competitively (a) prevented by Microsoft from effectively returning the Microsoft operating system for a refund (notwithstanding the terms of Microsoft's end-user license), (b) prohibited by Microsoft from installing on their new PCs the Windows operating system on their existing PC, and (c) prohibited by Microsoft from re-selling on a stand-alone basis the Windows operating system products which they purchased with their

new PCs.

GOVERNMENT ACTIONS AGAINST MICROSOFT

72. In the early 1990's, the United States Department of Justice ("DOJ") investigated (and subsequently brought a complaint concerning) Microsoft's illegal and anti-competitive practices in the operating system market in *United States v. Microsoft*, Civ. No. 94-1564 (D. D.C., Petition filed July 15, 1994) ("*Microsoft I*"). The anti-competitive practices complained of in *Microsoft I* included Microsoft's requirement that OEMs enter into "per processor" license agreements which required OEMs to pay operating systems royalties to Microsoft on every machine the OEMs shipped regardless of whether the machine contained MS-DOS, another operating system from a competing developer (such as Digital Research's DR-DOS), or no operating system at all. Thus, the OEMs could only use a competing operating system if they were willing to pay twice—once to Microsoft and once to Microsoft's competitor. The DOJ complaint also challenged other anticompetitive provisions in Microsoft's OEM licenses.

73. The United States District Court for the District of Columbia entered a final judgment in *Microsoft I* on August 21, 1995, which barred several anti-competitive terms in Microsoft's agreements with OEMs. Prohibited contract provisions included: "per processor" license provisions, license terms exceeding one year in length, provisions prohibiting or restricting OEMs from licensing or distributing non-Microsoft operating systems, provisions conditioning an OEM's license of one Microsoft operating system product upon the license of another Microsoft product or upon the OEM not licensing a non-Microsoft product, minimum commitment provisions, and provisions requiring royalty payments to Microsoft other than on a per-copy or per-system basis. As described in more detail below, Microsoft was able to devise other anticompetitive provisions in its OEM and other agreements that had the same

exclusionary effect as the conduct prohibited in the 1995 final judgment.

74. In 1997, the United States sought to have Microsoft held in contempt for violating the 1995 final judgment, in large part due to Microsoft's requirement that OEMs license and distribute Microsoft's Internet Explorer browser as a condition for obtaining a license to Windows 95 ("*Microsoft II*"). Despite the Federal District Court's entry of a preliminary injunction on December 11, 1997, Microsoft publicly announced on December 15, 1997 that any OEM that did not agree to license and distribute Internet Explorer could not obtain a license to the current version of Microsoft's Windows operating system.

Subsequent proceedings led to a renewed complaint by the United States. On May 18, 1998, the DOJ, joined by twenty states, including Iowa, and the District of Columbia, filed suit against Microsoft alleging various antitrust violations by the company ("*Microsoft III*"). *Microsoft III* challenged Microsoft's efforts to protect its Windows monopoly from the threat posed by "middleware." Because middleware could support alternative platforms or even become an alternative platform to which applications could be written, Microsoft understood the challenge this class of software posed to Microsoft's operating systems monopoly. Indeed, according to the DOJ, Microsoft viewed certain middleware—including Netscape's Navigator web browser and Sun Microsystems' Java technologies—as the most significant threat to its operating systems monopoly at the time.

75. The DOJ alleged that Microsoft, in order to protect its Windows monopoly from various middleware threats, engaged in a series of anti-competitive activities aimed at preventing widespread distribution of these middleware products. Those activities included: agreements tying other Microsoft software products to Microsoft's Windows operating system; exclusionary agreements which precluded companies from distributing, promoting or using products of

Microsoft's software competitors; and exclusionary agreements restricting the rights of companies to provide services or resources to Microsoft's software competitors. For eighteen months, the DOJ and Microsoft vigorously litigated the merits of the DOJ's allegations.

76. On November 5, 1999, Judge Thomas Penfield Jackson released his Findings of Fact in *Microsoft III*, 84 F. Supp.2d 9 (D.D.C. 1999), based on the extensive evidence presented during the bench trial. Judge Jackson's Findings of Fact concluded, *inter alia*, that "Intel-compatible PC operating systems" was a relevant market for antitrust purposes and that Microsoft—by virtue of its 90-percent-plus market share combined with high barriers to entry—held (and continues to hold) a monopoly in that market. The Findings of Fact also catalogued an extensive list of anti-competitive activities by Microsoft directed primarily at Netscape Navigator and Sun's Java technologies, along with conduct aimed at other nascent middleware threats—including, but not limited to, Intel's Native Signal Processing, RealNetwork's Media Player and Apple's Quicktime. Microsoft's conduct, according to the Findings of Fact, was aimed at preserving the "applications barrier to entry" which protected Microsoft's operating systems monopoly.

77. On April 3, 2000, Judge Jackson issued his Conclusions of Law in *Microsoft III*, 87 F. Supp. 2d 30 (D.D.C. 2000), in which he stated, *inter alia*, that "Microsoft maintained its monopoly power [in the operating systems market] by anti-competitive means... in violation of" the antitrust laws, including the Iowa Competition Law, Iowa Stat. § 553.01 *et seq.* Conclusions of Law, 87 F. Supp. 2d at 35.

78. In the remedy stage, proposals submitted to the court in *Microsoft III* by the DOJ asked the court to split Microsoft into two different companies—with one company retaining the Windows operating system business and the other taking the rest of Microsoft's business,

including software applications and Internet software. The DOJ reorganization plan was recommended, in large part, to restrict Microsoft's wrongful exercise of its combined monopoly power over operating system and applications software, and to prevent it from continuing to leverage its monopoly power in the operating system market to exert control over and raise barriers to entry in the software applications markets, and thereby reinforce the applications barrier to entry in the operating systems market.

79. On June 6, 2000, the *Microsoft III* court approved the DOJ proposal and directed that Microsoft be split into two separate companies. However, the court stayed implementation of the divestiture order pending an appeal by Microsoft.

80. On June 28, 2001, the United States Court of Appeals for the District of Columbia upheld the District Court's conclusions that Microsoft enjoyed monopoly power in the market for Intel-compatible PC operating systems and that Microsoft illegally maintained that monopoly in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2, and analogous state law (including the Iowa Competition Law). According to the D.C. Circuit, Microsoft's illegal conduct included, *inter alia*: imposing overly-restrictive licensing terms on OEMs in order to inhibit the distribution of Netscape's Navigator browser; commingling Internet Explorer code with Windows so end-users could not remove the browser from the operating system; entering exclusive contracts with IAPs to restrict Netscape's access to those valuable distribution channels; threatening to cancel development of Microsoft Office for the Macintosh unless Apple Computer agreed to make Internet Explorer its default browser; creating a "polluted" version of Java and then deceiving Java developers into creating applications that would not properly function on platforms other than Windows; and coercing Intel into abandoning efforts to create certain cross-platform technologies. *Microsoft III*, 253 F.3d 34 (D.C. Cir. 2001).

81. The Court of Appeals vacated the District Court's divestiture remedy in part because of modifications by the D.C. Circuit to Judge Jackson's liability determinations in the Conclusions of Law. The D.C. Circuit remanded the matter to the District Court for further proceedings, including remedies hearings. On November 1, 2002, Judge Colleen Kollar-Kotelly entered final judgments in the DOJ and state actions which largely tracked a proposed settlement entered into between Microsoft and the DOJ in November 2001.

82. Notwithstanding the final judgment in *Microsoft III*, the economic effects of Microsoft's anti-competitive conduct alleged herein continue unabated. Indeed, nothing in the final judgment required Microsoft to lower prices for its operating systems software or otherwise eliminate the embedded overcharge in the operating systems market resulting from years of monopolistic conduct, and there is no indication that Microsoft has undertaken such a price reduction of its own volition. To the extent the final judgment has any effect in lowering the applications barrier to entry (and perhaps re-injecting competition in the operating systems market), any tangible impact on prices for operating systems is years away, at best.

83. Moreover, the final judgment did not even terminate all of Microsoft's conduct held to be illegal by the D.C. Circuit. For instance, Microsoft is not required under the final judgment to end its anti-competitive practice of commingling operating system and browser code. Microsoft has given no indication that browser and operating systems code does not continue to be commingled in its most recent operating systems releases: Windows XP Home Edition and Windows XP Professional.

84. Microsoft's conduct has also been held to be in violation of the competition laws of the European Communities by the European Commission ("Commission"). The Commission is a politically independent institution which, among other duties and responsibilities, enforces

European Union (“EU”) competition rules on restrictive business practices and abuses of monopoly power for the whole of the European Union when cross-border trade and competition are affected.

85. In December 1998, the Commission received a complaint from Sun Microsystems that Microsoft had refused to provide interface information necessary for Sun to be able to develop products that would be properly compatible with the ubiquitous Windows operating system, and hence be able to compete on an equal footing in the market for workgroup server operating systems. The Commission’s investigation revealed that Sun was not the only company that had been refused this information by Microsoft, and that these non-disclosures by Microsoft were part of a broader strategy designed to foreclose competitors from the market.

86. In 2000, the Commission enlarged its investigation, on its own initiative, to study the effects of the tying of Microsoft’s Windows Media Player with the company’s Windows operating system.

87. On March 24, 2004, following a comprehensive investigation of Microsoft’s conduct, the Commission concluded that Microsoft had violated the competition laws of the European Communities. In a 302-page decision, the Commission held that Microsoft had been in continual violation of Article 82 of the European Communities’ competition laws and imposed a fine against Microsoft of 497,196,304 euros (roughly equivalent to US \$613,000,000).

88. In its ruling, the Commission concluded that Microsoft had abused, and continues to abuse, its monopoly in the PC operating system market by (a) refusing to provide competitors producing workgroup server operating systems software technical information they need to interoperate with Microsoft’s PC operating systems and (b) integrating its PC operating system code and its workgroup server code. The purpose and effect of Microsoft’s actions, the

Commission declared, has been to foreclose competition among workgroup server operating system software and thereby further entrench its monopoly of the PC operating system market. The Commission further noted that these violations are ongoing.

89. The Commission concluded that Microsoft has a monopoly of the world market for PC operating systems and that, as a result of its exclusionary conduct, now has a virtual monopoly of the workgroup server operating system market. The Commission rejected Microsoft's repeated argument that it had an absolute right to withhold information about its operating system, even if to prevent rival applications from interoperating with Windows, and that to require such disclosure would eliminate its "incentive to innovate."

90. The Commission also held that Microsoft had abused, and continues to abuse, its monopoly of the PC operating system market by tying its media player software to its operating system. The purpose and effect of Microsoft's tying, the Commission determined, has been to foreclose competition in the media player software market and thereby further entrench its monopoly of the operating system market. The Commission further noted that these violations are ongoing.

BACKGROUND

The Road to Microsoft's Monopoly In the Operating System Software Market

91. In 1981, Microsoft released the first version of its Microsoft Disk Operating System for Intel-compatible PCs, known as "MS-DOS." The system had a character-based user interface that required the user to type specific instructions at a command prompt in order to perform tasks such as launching applications and copying files. When International Business Machines Corporation ("IBM") selected MS-DOS for pre-installation on its first generation of PCs, Microsoft's software became the dominant operating system for Intel-compatible PCs.

92. In 1985, Microsoft began marketing an operating system for Intel-compatible PCs called Windows. This software included a GUI, which enabled users to perform tasks by selecting icons and words on the computer monitor's screen with a mouse. Windows 3.0, released in 1990, was the first version of Windows to gain widespread adoption in the market.

93. In 1995, Microsoft introduced Windows 95, which Microsoft advertised was the first operating system for Intel-compatible PCs that had the same kinds of integrated features as the MacOS operating system for PCs manufactured by Apple Computer, Inc. ("Apple"). (Prior versions, while having some characteristics of an operating system, required the presence of DOS to run.) In reality, however, Windows 95 was little more than Windows 4.0 running atop MS-DOS 7.0 (more like previous versions of Windows than like the Mac OS). In June 1998, Microsoft launched its successor, Windows 98, followed later by Windows 98 SE and Windows Me.

94. At the same time Microsoft was developing and marketing its consumer-oriented Windows products such as Windows 3.1 and Windows 95/98, Microsoft was also developing and marketing the Windows NT operating system. Windows NT 3.1 was released in July 1993. According to Microsoft, "the desktop version [of Windows NT] was well received by developers because of its security, stability, and rich Microsoft Win32® application programming interface (API)." Later versions of Windows NT included Windows NT 3.5 Workstation, Windows NT 4.0 Workstation, and Windows 2000 Professional.

95. In October 2001, Microsoft released its most current version of the Windows operating system, dubbed Windows XP. Two desktop versions of Windows XP are available: Windows XP Home Edition and Windows XP Professional (as well as Windows XP Media Center Edition, a "superset" of Windows XP Professional). According to Microsoft: "Windows

XP is a unifying leap forward for desktop operating systems. With the release of Windows XP Home Edition and Windows XP Professional..., Microsoft succeeded in merging its two Windows operating system lines for consumers and businesses, uniting them around the Windows NT and Windows 2000 code base.”

96. Microsoft possesses—and at all relevant times has possessed—a dominant, stable, and increasing monopoly share of the market for operating systems for Intel-compatible PCs. Over the last decade, Microsoft's share of the market for operating systems for Intel-compatible PCs has exceeded 90 percent and, more recently, it has exceeded 95 percent. It has been projected that Microsoft's share of the market will increase over the next few years.

97. Microsoft's pricing behavior demonstrates that Microsoft possesses monopoly power in the operating systems market. As the recent government action against Microsoft established, Microsoft did not even consider the prices of competitors' operating systems for Intel-compatible PCs when it set the price of Windows 98. Findings of Fact ¶ 62. Microsoft was able to exercise unfettered discretion in setting the price for the license of its Windows 98 upgrade product. According to an internal Microsoft study from November 1997, Microsoft could have charged \$49.00 for an upgrade to Windows 98, and there was no reason to believe that the \$49.00 price would have been unprofitable for Microsoft. The study, however, determined that a price of \$89.00 would maximize revenues for Microsoft. Findings of Fact ¶ 63. Because of its monopoly power, Microsoft was able to charge the higher price. Moreover, Microsoft raised the price that it charged OEMs of Intel-compatible PCs for Windows 95, with few exceptions, to the same level as the price it charged for Windows 98 prior to its release. Findings of Fact ¶ 62. In a competitive market, it would be expected that the price of an older operating system would stay the same or decrease upon the release of a newer, more attractive

version. Microsoft, however, was only concerned with inducing OEMs to install Windows 98 in favor of the older version. Microsoft would not have imposed this price increase if it were at all concerned that OEMs might shift their business to another vendor of an operating system for Intel-compatible PCs.

Microsoft's Windows Monopoly: The Applications Barrier to Entry

98. There are several high and strong barriers to entry into the market for operating systems for Intel-compatible PCs. Perhaps the most daunting barrier to entry is created by the number of software applications that must run on an operating system in order to make the operating system attractive to end users. As the District Court in *Microsoft III* found—and as the D.C. Circuit agreed—Microsoft's monopoly power in the operating systems market derives in part from the “applications barrier to entry.” Microsoft went to great lengths (as established below) to destroy the competitive position of any software product that threatened to weaken or eliminate that barrier.

99. The applications barrier to entry results from the “chicken and egg” nature of the demand for PC operating systems. Consumers tend to be more interested in an operating system for which there is a substantial library of existing software applications. The fact that a vastly larger number of applications have been written to run on Microsoft operating systems than on other PC operating systems has attracted consumers to Microsoft's operating system; end users assume that their interests in applications will be met as long as they use Microsoft's product.

100. Software development is characterized by substantial economies of scale. The fixed costs of producing software, including applications, are very high. By contrast, marginal costs are very low. Moreover, much of the cost of developing software is “sunk”—once expended, such resources cannot be used for another purpose. The result of economies of scale

and sunk costs is that developers write their applications only to those operating systems that have a large enough installed base to generate sufficient sales to justify the developers' development costs.

101. An application that is written for one PC operating system will operate on another operating system only if it is converted (or "ported") to run on the other platform. Porting applications is both time-consuming and expensive. Therefore, applications developers tend to write first to the operating system with the most users. Developers might then convert their applications to other operating systems, but only to the extent that the added sales justify the cost of conversion, including opportunity costs. In order to recover those costs, ISVs that go to the effort of converting these products frequently set the prices of the ported applications considerably higher than the prices for the original versions.

102. The applications barrier to entry also results from the positive network effect associated with computer software. That is, the attractiveness of an operating system increases with the number of people using it. As a result of the multitude of people using MS-DOS or Windows, ISVs have tended to write applications first and foremost to run on those Microsoft operating systems, thereby ensuring a large body of applications for that platform. The large body of applications for MS-DOS and Windows in turn reinforces demand for Microsoft's operating systems. This self-reinforcing "positive feedback loop" augments Microsoft's dominant position in the operating systems market and perpetuates ISV incentives to write applications principally for MS-DOS and Windows.

103. The small or non-existent market share of an aspiring competitor makes it prohibitively expensive for a potential entrant to develop its PC operating system into an acceptable substitute for MS-DOS or Windows. To provide a viable substitute for MS-DOS or

Windows, another PC operating system would need a large and varied base of compatible applications that were comparable to Microsoft's library in size and variety. Even if the aspirant attracted several thousand compatible applications, the alternative operating system would still look like a gamble from the consumer's perspective next to MS-DOS and Windows, which support tens of thousands of applications. The amount it would cost an operating system software vendor to make that many applications available would be prohibitively large.

104. In deciding whether to develop an application for a new operating system, an ISV's first consideration is the number of users it expects the operating system to attract. Out of this focus arises a collective-action problem: each ISV realizes that the new operating system could attract a significant number of users if enough ISVs developed applications for it; but few ISVs are willing to sink resources into development for the platform until it becomes established. Since everyone is waiting for everyone else to bear the risk of early adoption, the new operating system has difficulty attracting enough applications to generate a positive feedback loop. The vendor of a new operating system cannot effectively solve this problem by paying the necessary number of ISVs to write for its operating system, because the cost of doing so would dwarf the expected return.

105. The experiences of IBM and Apple, Microsoft's only significant operating system rivals in the 1990s, demonstrate the strength of the applications barrier to entry that Microsoft created and maintains.

106. IBM introduced its OS/2 Warp operating system for Intel-compatible PCs in late 1994, and subsequently spent tens of millions of dollars in an effort to attract ISVs to develop applications for the operating system. In a related effort, IBM also undertook efforts to reverse-engineer key aspects of Windows APIs. Despite these efforts and expenditures, IBM could not

obtain either significant market share or ISV support for OS/2 Warp. The enormous Windows installed base made it prohibitively expensive for IBM to continue attempting to attract enough software developer support to challenge Windows. Although at its peak OS/2 Warp accounted for approximately ten percent of the market for Intel-compatible PC operating systems and ran about 2,500 applications, IBM ultimately determined that the applications barrier to entry enjoyed by Microsoft prevented effective competition against Windows 95. For that reason, IBM in 1996 ceased its efforts to have ISVs write applications for OS/2 Warp. IBM now targets OS/2 Warp at a market niche, consisting mainly of banks that use particular kinds of applications that run on OS/2 Warp.

107. Apple provides another example of the strength of the applications barrier to entry enjoyed by Microsoft (although Apple's Mac OS does not run on Intel-compatible microprocessors and therefore is not within the same relevant market as Windows). Apple's Mac OS operating system supports more than 12,000 applications. Nevertheless, even an inventory of that magnitude is not sufficient to enable Apple to present a significant percentage of users with a realistic substitute for Windows. The absence of a large enough installed base of Mac OS users reinforces the disparity between the applications made available for Mac OS and those made available for Windows, further inhibiting Apple's sales.

108. As Microsoft has consistently been aware, its dominant share of the market for operating systems for Intel-compatible PCs has been the principal contributing force in creating and maintaining the applications barrier to entry into that market. As Microsoft has also consistently been aware, it is directly due to the applications barrier to entry into the operating systems market that Microsoft was able to establish the supra-competitive prices for its operating systems software. The experience with Windows 98 licenses, as set forth above, provides a

telling example. Microsoft established the price for Windows 98 licenses without regard to competition, at a monopoly price in excess of what Microsoft would have been able to charge in a competitive market. Plaintiffs and the other members of the Class were forced to pay those monopoly prices.

109. While the applications barrier to entry has been formidable, it is not necessarily insurmountable or permanent. As described further below, middleware products appeared in the market in the late 1980s and in the 1990s that threatened to eliminate that barrier. Microsoft, however, was vigilant and successfully undertook anti-competitive acts and practices to forestall and eliminate middleware and similar threats and retain the full force of the applications barrier.

110. All of Microsoft's unlawful actions in maintaining the applications barrier to entry have had as their ultimate unlawful purpose, and have had the resulting unlawful effect of, enabling Microsoft unlawfully to exercise its monopoly power by licensing its operating systems for Intel-compatible PCs without regard to competition and at a monopoly price in excess of what Microsoft would have been able to charge in a competitive market, to the injury of Plaintiffs and members of the Classes.

MICROSOFT'S ANTI-COMPETITIVE ACTIVITIES IN THE OPERATING SYSTEM MARKET

Overview

111. As a result of its predatory conduct, Microsoft successfully fended off challenges to its operating system monopoly. The first challenge came directly from competing operating systems such as Digital Research's DR-DOS, and IBM's OS/2, and later from Be, Inc.'s ("Be") BeOS, Go Corporation's ("Go") Pen Point, and the "open source" GNU/Linux operating system. DR-DOS and OS/2 were positioned to compete vigorously against MS-DOS and early versions

of Windows. Through a series of predatory acts from 1988 through 1994, however, Microsoft essentially eliminated both DR-DOS and OS/2 from the market. BeOS, on the other hand, emerged later (around 1998), long after Microsoft had established its monopoly power in the operating systems market. When Be threatened Microsoft's hegemony by pursuing a "dual boot" strategy to overcome the applications barrier to entry, Microsoft responded with a series of anti-competitive acts which drove Be from the market.

112. The second type of challenge to Microsoft's monopoly was posed by several middleware products which from 1988 to 1998 threatened to weaken or circumvent the applications barrier to entry that insulated Microsoft from competition. Following the elimination of DR-DOS and OS/2 as viable alternatives to its operating systems, Microsoft realized that the most significant potential threat to its Windows monopoly did not come from a direct attack by existing or new operating systems. Microsoft recognized that, instead, applications barrier to entry could be seriously eroded—and Microsoft's operating system monopoly correspondingly threatened—by new software products that could support, or even themselves become, alternative platforms to which applications could be written and which could be used in conjunction with multiple operating systems including, but not limited to, Windows.

113. In 1981, Microsoft became a significant supplier of PC operating system software when it contracted with IBM to design and develop operating system software for the IBM personal computer. By the mid-1980s, Microsoft's MS-DOS operating system had become entrenched as the standard for Intel-compatible personal computers.

114. By 1987, several OEMs, whose computers were sold with operating systems pre-installed, approached Digital Research, a Microsoft competitor, about developing a better

operating system than MS-DOS. In 1988, Digital Research released its operating system software under the name DR-DOS. Given the relative lack of complexity of MS-DOS at that time, Digital Research was readily able to clone Microsoft's software (i.e., DR-DOS could support the same applications software as MS-DOS supported). In addition, DR-DOS included features that MS-DOS lacked. DR-DOS received numerous industry awards and was sold at a lower price than MS-DOS.

115. Unable or unwilling to legitimately compete with DR-DOS by attempting to offer a better or lower-priced product, Microsoft instead embarked on a series of unlawful predatory acts designed to drive Digital Research from the market. These predatory acts focused largely on the OEM channel, which distributed the vast majority of operating system software by pre-installing it on computers. By controlling this critical distribution channel to the exclusion of DR-DOS, Microsoft made Digital Research's competitive position untenable, and by 1994 Digital Research was forced to exit the market.

116. Microsoft realized by the mid-1980s that MS-DOS was becoming obsolete and therefore began working with IBM to develop the next generation operating system. The first version of Microsoft and IBM's joint efforts was released in 1987 under the name OS/2. However, by 1990 Microsoft's Windows software (which contained some of the graphical user interface ("GUI") elements that Microsoft had been developing for OS/2), was gaining popularity, and Microsoft decided to focus its efforts on Windows to the exclusion of OS/2. IBM took over exclusive development of OS/2. The second generation of IBM's OS/2 won over many Window 3.x users because of its superior performance.

117. Again, unable or unwilling to compete on the merits, Microsoft resorted to a course of anti-competitive conduct directed at OS/2. By the end of 1994, Microsoft's predatory

conduct had the desired effect of eliminating OS/2 as a significant competitor. Many of Microsoft's anti-competitive acts were the same as or similar to those targeted at DR-DOS.

118. With Microsoft's two main competitors essentially out of the market, any challenge to Microsoft's monopoly could only come from a new entrant. But—as noted above—any potential competitor faced the applications barrier to entry. By 1994, moreover, a new competitor could not circumvent the applications barrier by cloning Windows since Microsoft's software had become much too complex to be cloned.

119. Since at least the late 1980s, part of Microsoft's strategy has been to protect its operating system monopoly by unlawfully maintaining the applications barrier. The most serious threat to the applications barrier has come from middleware, which exposes APIs (or their equivalent) that can substitute for or enhance some of the functionality of the operating system. Applications written to middleware APIs, therefore, can run on any of several operating systems. Thus, middleware has the capacity to weaken or eliminate the applications barrier to entry by, as Bill Gates stated, “commoditizing” the operating system. Whenever middleware has threatened to undermine or eliminate the barrier, Microsoft's response has been swift and predatory.

120. An early threat came from Mirrors, Micrographx's software developer tool that allowed applications designed to run on MS-DOS to also run on OS/2. Microsoft's exclusionary conduct, however, drove Mirrors from the market.

121. Borland International, Inc.'s (“Borland”) developer tools (which were the market leader in the early 1990s) allowed software developers to easily convert applications from one operating system to another. As with Mirrors, Microsoft engaged in anti-competitive conduct that essentially eliminated Borland's product from the market.

122. The Micrographx and Borland threats were followed in the mid-1990s by a string of middleware and other products that threatened to diminish the applications barrier to entry: (1) a software product called Notes, distributed first by Lotus and then by IBM, (2) Netscape's Navigator web browser, (3) Java technologies, a programming language and related software developed by Sun Microsystems, (4) Intel's Native Signal Processing software, (5) Apple's, Burst.com's and RealNetwork's multimedia playback technologies, and (6) workgroup servers and similar products from Sun Microsystems, Novell, and Samba.

123. Microsoft understood that each of these Middleware and other products facilitated the development of applications programs that would be indifferent to the identity of the underlying operating system. Consequently, Microsoft responded predatorily to each such product.

124. During the late 1990's, Microsoft confronted a new operating system entrant in Be's BeOS. BeOS was developed as a powerful, graphical, easy to use computer operating system capable of handling the vast streams of data required by multimedia applications. From the time of its release in the Fall 1998, BeOS for Intel-compatible PCs received widespread praise from journalists and industry leaders for its technical capabilities, speed and ease of use.

125. Recognizing that the applications barrier to entry made any immediate attempt to displace Windows prohibitively expensive, Be attempted to position BeOS as a "complement" to Windows and thus adopted a "dual boot" strategy. Microsoft, however, used anti-competitive OEM licensing terms, coupled with threats, to force OEMs not to pre-install BeOS alongside Windows on their PC products.

Exclusion of DR-DOS

126. In 1981, Microsoft contracted with IBM to design and develop the operating

system software for the IBM PC. Microsoft acquired rights from another company for a product called “QDOS,” which borrowed heavily from an operating system developed by Digital Research called CP/M. Microsoft changed the name of QDOS to MS-DOS and licensed it to IBM and others.

127. By the mid-1980s, MS-DOS had become entrenched as the standard in the Intel-compatible PC operating systems market. The price of MS-DOS in the OEM channel escalated from \$2-\$5 per copy in the 1981-1982 period to \$25-\$28 per copy by 1988.

128. Because of Microsoft’s apparent decision not to innovate or extend the capabilities of MS-DOS, a number of OEMs approached Digital Research to develop an improved version of DOS. In addition, a number of OEMs who simply could not get Microsoft to deal with them expressed an interest in Digital Research as an alternative DOS software supplier. Accordingly, in 1987 Digital Research began planning a new version of DOS to be called DR-DOS.

129. The result of Digital Research’s efforts was a product designated as DR-DOS 3.31, introduced in 1988. That version was followed by an enhanced DR-DOS 5.0 in 1990 and DR-DOS 6.0 in 1991. Those DOS versions were significantly superior to then-existing versions of MS-DOS in many areas, receiving numerous industry awards and enthusiastic reviews. DR-DOS was offered at prices below the inflated price levels of MS-DOS products.

130. Microsoft responded to the DR-DOS threat with a number of anti-competitive practices, including:

- a. Microsoft constructed a wall of per processor licenses beginning in 1988 when DR-DOS was released. Microsoft OEM status reports contained repeated references to these practices, such as: “Opus agreement has finally been signed by

Redmond. Another DRI prospect bites the dust with a per processor DOS agreement,” or “DRI visited Hyundai executives and pricing issue was raised again. The new license is a per processor deal, which allowed us to completely kick out DRI.” One OEM, U.S. Micro Express, stated with respect to a per processor license that “We were not given the option of licensing MS-DOS on any other basis”;

- b. Microsoft also entered into long term “take or pay” minimum commitment licenses. Even though the life cycle of a DOS release was somewhat less than two years, Microsoft pushed for agreements of two or three years in duration. This was a key part of the “Strategy Against DRI” presented in June 1991 to the Microsoft OEM sales force;
- c. Furthermore, Microsoft required prepaid balances from OEMs, tying them to Microsoft through the threat that they would forfeit any prepaid amount not used during a contract period unless a new license was signed;
- d. In order to deter end users from running Windows on top of DR-DOS, Microsoft implemented a “DOS clone check” in 1989 on foreign versions of Windows, as evidenced by this message from the Microsoft Korean subsidiary:

Bill Gates ordered all application business units to include checking routines of operating environments and if it is Microsoft DOS, nothing will happen. But if it is non MS-DOS (such as DR-DOS), application will display messages saying that “This application has been developed and tested for MICROSOFT MS-DOS. Since you use different environment, this application may not work correctly. . . .”

A similar DR-DOS detection and warning was implemented in Microsoft’s QuickPascal, with a message that warned that use of the product with another

operating system “may void valuable warranty protection by Microsoft . . .”;

- e. Microsoft made false, misleading and premature announcements such as the one in June 1990 (within a week of Digital Research’s announcement of DR-DOS 5.0) that Microsoft intended to release by September 1990 MS-DOS 5.0, that would have all the technical advantages of DR-DOS 5.0. In the end, MS-DOS 5.0 was not released until June 1991—over one year after Microsoft’s announcement—and it was released without the promised features. Microsoft made similar preemptive “vaporware” announcements of MS-DOS 6.0, MS-DOS 7.0 (which never came to market as a stand-alone product) and Windows 95, in direct response to DR-DOS 6.0 and Novell DOS 7.0. (Novell acquired Digital Research in 1991.) Microsoft knew these announcements were false and misleading when made and essentially stalled the market for DR-DOS as consumers waited for the “features” which did not exist at the time of announcement, nor when the products were finally released;
- f. Microsoft engaged in merger discussions with Novell immediately after Novell’s acquisition of Digital Research, and insisted as a part of the proposed merger that Novell divest Digital Research, with the ulterior purpose of causing Novell to slow down its integration of DR-DOS. When Microsoft’s merger discussions broke down in 1992, Microsoft fatally wounded DR-DOS as a competitor;
- g. In Fall 1991, Microsoft announced that DR-DOS would not be compatible with the next release of Windows, scheduled for release in April 1992. To reinforce the impression of incompatibility, Microsoft released “beta” (i.e. test) versions of Windows containing code that generated misleading error messages when

Windows ran on top of DR-DOS;

- h. Microsoft created deliberate incompatibilities between Windows and DR-DOS, so that Windows would not run properly on DR-DOS;
- i. Microsoft unleashed a "FUD" campaign to create "fear, uncertainty and doubt" in the OEM and retail channel regarding the use of DR-DOS. In May 1991, Sergio Pineda of Microsoft circulated to all OEM account managers the following regarding the theme of the campaign:

Any degree of incompatibility is enough to create fear, uncertainty & doubt among end users when it comes time to buy new systems — this suggests that PC OEMs will take on a big risk if they ship DR-DOS with their systems.

We recommend that we "informally" plant the bug of FUD in their ears.

- j. As part of its FUD campaign, Microsoft reported supposed flaws in DR-DOS to the media as crippling "bugs," while not mentioning to the media that MS-DOS releases had such severe bugs that Microsoft was required immediately to release "patches" to cure them. A July 1991 memo from a Microsoft executive states: "We are engaged in a FUD campaign to let the press know about some of the bugs. We'll provide info a few bugs at a time to stretch it out";
- k. Microsoft put Novell on a "beta blacklist," refusing to provide a Windows 3.1 beta to Novell's DR-DOS development team, and thereby hampering Novell's ability to offer a Windows 3.1-compatible release of DR-DOS;
- l. Microsoft inserted secret, encrypted code into the final Windows 3.1 (beta) version that triggered a false error message whenever a computer was running DR-DOS with Windows. This AARD Code had the intended effect of creating

concern among OEMs about DR-DOS. The code was removed from the final (nonbeta) version of Windows 3.1;

- m. Microsoft informed certain OEMs that they could not obtain Windows or be given access to essential information, product support and service, if they did not purchase and ship MS-DOS to the exclusion of DR-DOS or enter into per processor licenses for MS-DOS and Windows;
- n. Microsoft retaliated against industry participants that supported DR-DOS. For example, when Z-Nix Inc. bundled DR-DOS 6.0 and Microsoft Windows 3.1, proclaiming no incompatibilities, Microsoft's Brad Silverberg wrote: "look what znix is doing! cut those fuckers off." Within three weeks, Microsoft demanded an audit of Z-Nix's entire business and then commenced a copyright and trademark infringement action. Z-Nix was forced to file for bankruptcy in or around 1995;
- o. Microsoft established a pricing structure for Windows that made it prohibitively expensive to buy that product without also buying MS-DOS. Microsoft often instructed some of its OEM account managers to inform their OEMs that the price for Windows alone would be higher than the price of Windows and MS-DOS combined.\

131. In its efforts to unfairly compete with DR DOS, Microsoft was willing to misappropriate Stac Electronics Inc.'s innovative STACKER disk compression technology. DR DOS already included disk compression technology, while MS-DOS did not.

132. In September 1994, as a result of Microsoft's anti-competitive conduct, Novell announced that it would cease the marketing and development of DR-DOS. After Novell's announcement, the price of Windows increased. Microsoft had succeeded in eliminating the one

competitor that, because its DOS program had the same original source as Microsoft, was not affected by the applications barrier to entry.

Virtual Elimination of OS/2

133. In the mid-1980s, Microsoft and IBM decided to collaborate on a new operating system that would replace MS-DOS. The product, which was later sold under the name OS/2, was intended to be a state-of-the-art, GUI-based operating system. However, as Microsoft's Windows software became more successful and as Microsoft's monopoly position became more entrenched by Microsoft's per-processor licensing and other exclusionary tactics, the company lost interest in collaborating with IBM. In 1991, IBM and Microsoft terminated their joint development agreement, leaving IBM to continue development of OS/2 alone.

134. After Microsoft's relationship with IBM ended, Microsoft launched a predatory campaign to drive OS/2 from the market. It pursued a course of conduct very similar to the one it used to exclude DR-DOS from the market. Thus, Microsoft relied on restrictive OEM licenses that effectively cut off IBM from the critical OEM channel; it made false and misleading vaporware announcements and pre-announcements; it refused to write its applications to run on OS/2; it engaged in FUD campaigns and product disparagement in an effort to devalue OS/2 in the minds of applications developers, OEMs and consumers; and it created deliberate incompatibilities between Windows and OS/2.

135. Microsoft required developers that wanted to obtain a "Designed for Windows 95" logo to make certain that their product also worked with Windows NT. In addition, as alleged below, Microsoft engaged in exclusionary conduct to drive a number of developer tools from the market that had enabled applications originally written to run on Microsoft's operating systems to be ported to OS/2. This limited the number of developers writing applications for

OS/2.

Microsoft's Predatory Campaign Against Go.

136. Go was the developer of PenPoint, a PC operating system designed primarily for what was then known as “pen based computing” and is now known as “tablet computing.” Go’s technology was sufficiently promising and innovative to catch the attention of the leading microprocessor manufacturer, Intel, which sought to engender some competition in the market dominated by Microsoft. Intel initially offered to provide Go with substantial financing and a valuable endorsement of Go’s technology. When Microsoft learned of Intel’s prospective support of a rival operating system, its CEO, Bill Gates, personally approached Intel and demanded that Intel withdraw its support of Go’s technology. Intel did so, by withdrawing its endorsement and dramatically scaling back its investment. Microsoft also forced Compaq to license Microsoft’s “Pen Windows” instead of Go’s software. (Microsoft’s collaboration with Intel and Compaq was almost identical to Microsoft’s more recent collaboration with the same firms against Linux.) As a result of those restraints, together with Microsoft’s unauthorized use of Go’s valuable trade secrets and other predatory acts directed at Go, Microsoft put Go out of business.

Microsoft's Predatory Conduct Toward Be

137. Be was founded in 1990 for the purpose of creating a powerful, graphical, easy to use operating system capable of handling, on low-cost personal computers, the vast streams of data required in multimedia applications. In Fall 1998, Be—in collaboration with Intel—created a version of BeOS for Intel-compatible PCs which received widespread praise in the industry.

138. Be recognized the obstacle posed by the applications barrier to entry, and

consequently Be offered to license BeOS to OEMs for pre-installation on PCs in a “dual boot” configuration. Such a configuration would allow the end user to choose which operating system (BeOS or Windows) to load when the computer was turned on. Be’s “dual boot” strategy would circumvent the applications barrier by allowing consumers to use BeOS if they wanted to take advantage of its multimedia capabilities but then boot into Windows if they needed to write a letter, create a spreadsheet or take advantage of other applications for the Windows platform. Be predicted that as its operating system became more widely deployed on “dual boot” computers, its growing user base would make it a more attractive platform for application developers.

139. Like Microsoft, Be recognized the importance of pre-installation in the OEM channel. Indeed, overcoming the applications barrier required BeOS to be installed on as many Intel-compatible PCs as possible. To that end, Be eventually offered to license BeOS to OEMs for “dual-boot” installation at no cost.

140. In September 1998, Hitachi verbally committed to Be that it would pre-install BeOS alongside Windows on a line of its personal computers. In November 1998, however, Hitachi informed Be that it could not install Be’s boot manager or BeOS launcher on its computers; instead, BeOS would have to be booted from a floppy disk (which would significantly impede end user access to the operating system). Hitachi eventually explained that the terms of its license with Microsoft prevented it from offering another operating system in a “dual-boot” configuration. Hitachi also informed Be that after it had notified Microsoft of its intent to pre-install BeOS, Microsoft sent two managers to Japan to express Microsoft’s anger over the arrangement. Microsoft also threatened to raise the price of Windows to Hitachi if Hitachi installed Be’s boot manager on its computers.

141. Be’s attempts to market BeOS to other OEMs confronted similar anticompetitive

obstacles. Despite backing from Intel, the technical superiority of BeOS for multimedia applications, and the fact that Be eventually offered to license BeOS without royalty, Be was unable to convince even a single major OEM to risk Microsoft's ire by offering a dual boot PC with BeOS pre-installed. Be has thus been excluded from the market.

Microsoft's Predatory Response to GNU/Linux

142. GNU/Linux is an "open source" operating system that runs on Intel-compatible PCs. Microsoft has targeted the competing operating system by pressuring Intel, as well as various major OEMs such as Dell and Compaq, to boycott Linux. In late 2000, for instance, Microsoft executive Joachim Kempin described his plan of retaliation and coercion to shut down competition from Linux: "I am thinking of hitting the OEM harder than in the past with anti-Linux actions" and will "further try to restrict source code deliveries where possible and be less gracious when interpreting agreements – again without being obvious about it," continuing "this will be a delicate dance."

143. LindowsOS (now known as Linspire), which is developed and marketed by Lindows.com, Inc., is an Intel-compatible PC operating system based on Linux and which competes directly with Microsoft on the PC desktop. On information and belief, Microsoft interfered with Lindows.com, Inc.'s ability to distribute its product through the OEM channel. Microsoft also initiated a lawsuit against Lindows.com, Inc. that adversely affected Lindows.com, Inc.'s ability to exist, obtain funding and conduct business.

Microsoft's Anticompetitive Agreements With OEMs To Foreclose Competition

144. Microsoft Chairman and former CEO, Bill Gates, reportedly summarized the effects of the DOJ's 1995 consent decree—which banned "per processor" licenses, among other exclusionary licensing terms—as "nothing." Microsoft was able to devise other restrictive OEM

agreements to foreclose competition in the OEM channel, notwithstanding the consent decree

145. A “per system” license was the practical equivalent of the “per processor” license. Under the “per system” license, the OEM had to pay royalties to Microsoft for every computer of a particular “model” or “system” that it shipped—again, as with the “per processor” contracts, regardless of whether the PC contained Microsoft’s operating system. Microsoft defined “system” and “model” so broadly in its contracts that virtually all of an OEM’s production was subject to Microsoft’s “double tax” if the OEM wanted to give the consumer a choice of operating systems. Microsoft did not agree to give up its “per system” licenses in the 1995 consent decree, even though the Department of Justice warned the federal district court that “per system licenses, if not properly fenced in, could be used by Microsoft to accomplish anticompetitive ends similar to ‘per processor’ licenses”—and in fact were.

146. Another way that Microsoft found to circumvent the federal court’s 1995 injunction forbidding its use of “minimum commitment/per processor” licenses was what Microsoft calls its “Market Development Agreements” (“MDAs”). Microsoft contrived the MDA as a device to evade the Court’s decree prohibiting Microsoft from requiring OEMs to adhere to “minimum commitments.” As Steve Ballmer (Microsoft’s current CEO) acknowledged: “We have always given better prices to customers who work with us to make the market. Those used to take the form of commits [i.e., minimum commitments] which we do not do anymore as a result of the [federal court’s] decree but we still believe in rewarding people who help us create demand. Hence the MDA.” Under the MDAs, Microsoft granted large discriminatory price concessions to those OEMs that would agree to market and promote Microsoft’s Windows to the exclusion of any rival operating system. These discounts were calibrated so as to force the OEM to sell most of its computers with a Microsoft operating system

in order to obtain the lowest price.

147. Because the OEM market is so competitive and profit margins are so thin, every OEM had to get the lowest price it could from Microsoft in order to survive. In March 2002, a Gateway marketing executive (Anthony Fama) testified before Judge Kollar-Kotelly in *State of New York et al. v. Microsoft*, Case No. 98-1233 (CKK), about how Microsoft used its MDA program in order to force OEMs to market Microsoft's operating system exclusively: "Given the substantial nature of these discounts, participation in the MDA, as a practical matter, is not optional. In other words, not receiving these discounts would put Gateway at a substantial competitive disadvantage, and Gateway has communicated that self-evident proposition to Microsoft." Microsoft also used its MDAs to lock OEMs in and competitors out by offering a discriminatory price to the OEM in a later year provided (a) the OEM reached Microsoft's imposed goal of Windows sales over competitive sales in the prior year and (b) renewed its exclusionary contract with Microsoft for the later year. This placed the OEM on a perpetual treadmill, eliminating competition indefinitely. Microsoft continued these exclusionary terms at least past April 2002.

148. One method for encouraging competition in the operating systems market would have been the sale by OEMs of "naked machines" (i.e., computers that are sold without a predetermined suite of software forced upon the consumer). "Naked machines" would allow consumers to choose their computer's software configuration from an array of competitive software products, either for preinstallation by the OEM or installation by the end user. Microsoft sought and obtained the agreement of the OEMs to refrain from selling "naked machines." Instead, OEMs universally agree to "bundle" Microsoft applications and operating systems with their computer hardware, effectively depriving consumers of any competitive

choices. These restrictive agreements existed before 2000 but, in 2000, Microsoft ratcheted the restriction up so that OEMs are forced to forfeit all discounts otherwise earned if they ship any “naked machines” to consumers. This heightened restriction, which (on information and belief) continues to the present, prohibits PC users and PC retailers from buying and installing lower priced or better quality operating systems of their choice.

Microsoft’s Anti-Competitive Maintenance of the Applications Barrier to Entry

149. By 1994, Microsoft had destroyed its two most significant competitors in the operating systems market as well as Go. Moreover, by that time Microsoft was secure that it would not encounter new competition from another clone operating system like DR-DOS since Windows had simply become too complex to be cloned. Only a non-clone, therefore, could potentially enter the operating system market. However, the applications barrier to entry--for reasons discussed above--made successful entry by a non-clone prohibitively expensive.

150. In addition to the exclusionary conduct intended to drive DR-DOS and OS/2 from the market, Microsoft’s unlawful conduct also consisted of predatory responses to the growing popularity of software products that threatened to weaken or eliminate the applications barrier to entry. A succession of such products appeared on the market between 1988 and 1998, and each product was met with a rapid, strong and predatory response by Microsoft. Microsoft engaged in continuing violations of the Iowa Competition Law by means of such exclusionary, predatory conduct and other conduct through which it specifically intended to create market conditions in which end users were forced to purchase Microsoft products and were deprived of competitive substitutes therefore.

Microsoft’s Predatory Response to Micrographx’s Mirrors

151. In the late 1980s, Micrographx offered a developer tool called Mirrors that

allowed Windows applications readily to be ported to OS/2 and vice versa. Mirrors therefore had the capacity to substantially weaken the applications barrier to entry. Microsoft engaged in anti-competitive acts to eliminate the Mirrors threat.

152. Microsoft induced Micrographx to share its confidential intellectual property on the representation that Microsoft was interested in licensing Mirrors for its applications programmers, and Microsoft signed a non-disclosure agreement. However, Microsoft then stopped pursuing such a license and eventually developed developer tools similar to Mirrors that it incorporated into its operating system, essentially eliminating demand for Mirrors as a stand-alone product.

153. Promptly after Microsoft declined to license Mirrors, Micrographx sought to license the product to IBM. To avoid the prospect that IBM would obtain the Mirrors technology and be able to port Windows applications to run on OS/2, Microsoft took predatory actions designed to, and which did, prevent that result.

Microsoft's Predatory Response to Borland's C++

154. In the early 1990s Borland's C++ was the most popular programming language among PC applications developers. Borland's C++ had an Object Windows Library ("OWL") that enabled programmers to write applications that were platform independent, i.e., the applications could be written to OWL's, not the operating system's, APIs. Eventually, Borland innovated OWL to the point where it could be used to write applications that could be ported to Windows, OS/2, Macintosh, and UNIX with virtually no conversion effort.

155. Seeing the threat that OWL posed to the applications barrier to entry, Microsoft embarked on a campaign to cripple Borland's C++. Microsoft prematurely announced the release of new versions of its competing developer tools and made false "vaporware" claims, to

deprive Borland of the advantages of being the first mover and having the superior product.

156. Furthermore, Microsoft refused to renew the license for its software developer kit ("SDK") to Borland unless Borland's C++ also carried and supported Microsoft Foundation Classes ("MFC"), which was Microsoft's counterpart to OWL. Borland literally could not sell C++ without SDK; on the other hand, if it shipped MFC in addition to OWL, developers would choose MFC as it would be the only library available as part of both the Borland and Microsoft developer tools. Borland had no choice but to choose the latter option. Microsoft's developer tools soon became dominant and its MFC, which carried the Windows APIs, perpetuated the applications barrier to entry.

Microsoft's Predatory Response to Intel's Native Signal Processing

157. Microsoft's quashing of Intel's Native Signal Processing ("NSP") is yet another example of Microsoft's relentless campaign to eliminate all threats to its operating system monopoly.

158. By 1995, Intel had developed NSP software which promised to "endow Intel microprocessors with substantially enhanced video and graphics performance." Findings of Fact at ¶ 95. But because NSP had the potential to serve as a platform on which applications could be developed, Microsoft forced Intel into ceasing NSP development, flatly precluding that innovation from reaching consumers. Findings of Fact at ¶¶ 94-103. The District Court in *Microsoft III* found that "as late as the end of 1998 . . . Microsoft still had not implemented key capabilities that Intel had been poised to offer consumers in 1995." Findings of Fact at ¶ 101. Even after quashing the threat of Intel's NSP software, Bill Gates told Intel at a meeting in August 1995 that Intel could not count on Microsoft to support Intel's next generation of microprocessors if Intel was developing platform-level software that competed with Windows.

Microsoft's Predatory Response to Netscape's Navigator

159. *Microsoft III* addressed actions taken by Microsoft to maintain the applications barrier to entry—and thus protect its monopoly power in the operating systems market—once Microsoft had successfully eliminated threats from DR-DOS and OS/2. The course of Microsoft's misconduct directed at Netscape's Navigator web browser is the subject of numerous conclusively established factual findings and legal conclusions from the government action, as detailed in this section.

160. Netscape Navigator possessed middleware attributes that gave it the potential to diminish Microsoft's applications barrier to entry. First, it was a complement to (not a substitute for) Windows, and therefore could gain widespread use. Second, it could serve as a platform for other software, particularly network-centric applications that work in association with Web pages. Third, Navigator had been ported to more than fifteen different operating systems. If a developer wrote an application that relied on the APIs exposed by Navigator, that application would, without any porting of its own, run on many different operating systems.

161. As was established in *Microsoft III*, Navigator began to enjoy tremendous public acceptance shortly after its release in December 1994. Microsoft soon thereafter recognized the damage Navigator could cause its operating system monopoly. In a May 1995 memorandum, Bill Gates, the Chairman and CEO of Microsoft, described Netscape as a "new competitor 'born' on the Internet." He warned that Netscape was "pursuing a multi-platform strategy where they move the key API into the client to commoditize the underlying operating system." In other words, Netscape's browsers threatened to reduce or eliminate the key barrier to entry that protected Microsoft's monopoly power in the operating systems software market.

162. As noted above, the applications barrier to entry, consisting of the large number

of software applications that will run on the Windows operating system but not on other operating systems, has precluded potential developers of alternative operating systems from effectively competing with Windows on the desktop. If, however, applications could be written to run on multiple operating systems, then competition in the market for Intel-compatible PC operating systems could be reinstated. Microsoft recognized that browser technology, in combination with Sun Microsystems' Java technologies, held out exactly that prospect, a threat which was altogether ominous for Microsoft when Mr. Gates wrote his "Internet Tidal Wave" memorandum in May 1995.

163. Java was designed to permit applications written in its language to be run on multiple operating systems for Intel-compatible PCs, including but not limited to Windows. Given that facility, Java-based applications are not restricted to Windows as their only operating system, as was previously the case with other applications. That daunting restriction has constituted the very foundation of the applications barrier to entry into the market for operating systems for Intel-compatible PCs that Microsoft created and continues to enjoy. The distribution of Java through Internet browsers that compete with Microsoft's Internet Explorer therefore threatened to eliminate the applications barrier to entry protecting Microsoft's monopoly of operating systems for Intel-compatible PCs. It correspondingly threatened to obliterate Microsoft's power to license its Windows operating systems for Intel-compatible PCs at monopoly prices, without regard to competition, in excess of what Microsoft would be able to charge in a competitive market.

164. At the time Microsoft began its anti-competition campaign against Netscape, non-Microsoft Internet browsers were the most significant means of distributing Java technology to end users. Microsoft recognized that the widespread use of browsers other than its own Internet

Explorer threatened to increase the distribution and use of Java, and in so doing threatened Microsoft's operating system monopoly by weakening the applications barrier to entry. Microsoft therefore determined aggressively to use its Internet Explorer to counter the threat to Microsoft's operating system monopoly presented by Java. A presentation to Microsoft Chairman Bill Gates on January 5, 1997, discussing how to respond to the Java threat, emphasized "Increase IE share" as a key Microsoft strategy.

165. Microsoft separately recognized that Netscape's Navigator browser was itself a "platform" to which many applications were being written. Microsoft realized that if Navigator thrived, more and more applications would be written using Navigator as a platform. Because Navigator could be run on various PC operating systems (including numerous non-Microsoft operating systems), the success of this alternative platform also threatened to reduce or eliminate the applications barrier to entry which protected Microsoft's operating system monopoly. Navigator—alone and in conjunction with Java—also threatened Microsoft's monopolies in word processing and spreadsheet applications software.

166. To respond to the competitive threat to Microsoft's operating system monopoly posed by Netscape's Navigator browser, both as a platform and as a vehicle for distributing Java, Microsoft determined to embark on an extensive and aggressive campaign to market and distribute Microsoft's Internet Explorer browser and to impede the distribution of Navigator. Microsoft described its campaign as a "jihad" to win the "browser war." Microsoft embarked on that "jihad" because winning the "browser war" was essential to its ability to preserve the applications barrier to entry and to thereby preserve Microsoft's power to license its Windows operating systems at monopoly prices. It was also necessary to preserve Microsoft's ability to license its Word and Excel applications at supra-competitive prices.

167. On information and belief, Microsoft's exclusionary campaign against Netscape continued even after the trial in *Microsoft III*.

Attempted Allocation of Browser Market

168. Microsoft first attempted to eliminate competition from Netscape by soliciting an express horizontal agreement not to compete. Microsoft executives met with Netscape executives for the purpose of inducing Netscape not to compete with Microsoft and to divide the browser market under the proposal it presented to Netscape. Microsoft would be the sole supplier of browsers for use with Windows 95 and successor operating systems, and that Netscape would be the sole supplier of browsers for operating systems other than Windows 95 and its successors. Netscape refused to participate in Microsoft's patently unlawful market allocation scheme.

169. Microsoft refused to abandon its anticompetitive strategy. Instead, it escalated its predatory course of conduct aimed at eliminating the browser threat to the Windows operating system monopoly. Microsoft thereupon set out to exclude Netscape and other browser rivals from access to the distribution, promotion, and resources that they needed in order to be competitive. To be successful, browser rivals such as Netscape would need to be able to offer their browser products to OEMs and PC users at a level sufficiently pervasive to facilitate the widespread distribution of Java, or to facilitate their browsers becoming an attractive programming platform in their own right. As has been shown above, those two potential scenarios would, either alone or in combination, erode the applications barrier to entry that is the basis of Microsoft's operating system monopoly. Microsoft was determined not to let either scenario come to pass.

170. Microsoft sank hundreds of millions of dollars into the testing and promotion of

Internet Explorer, and then distributed that product without separate charge. Such actions would only make sense to a predatory monopolist. As if any further explanation of that behavior were necessary, Microsoft's Vice President in charge of the Platforms Group told industry executives: "We are going to cut off [Netscape's] air supply. Everything they're selling, we're going to give away for free." And Microsoft's Chairman Bill Gates boasted in June 1996: "Our business model works even if all [of Microsoft's] Internet software is free.... We are still selling operating systems. What does Netscape's business model look like? Not very good."

171. In addition to free distribution of Internet Explorer, Microsoft did whatever it took to make sure significant market participants distributed and used Internet Explorer instead of Netscape's Navigator, including paying some customers to take IE and using its Windows monopoly power to induce others to do so. Mr. Gates was blunt in seeking the support of Intuit, a significant application software developer, as he reported in a July 1996 Microsoft e-mail:

I was quite frank with him [Scott Cook, Chairman of Intuit] that if he had a favor we could do for him that would cost us something like \$1M to do that in return for switching browsers in the next few months I would be open to doing that.

172. All told, Microsoft's campaign against Netscape ultimately involved a range of anti-competitive acts, including, *inter alia*:

- a. After Netscape refused Microsoft's offer to divide the Web browsing market, Microsoft withheld crucial technical information from Netscape. At a meeting in June 1995, Netscape representatives requested technical information from Microsoft. A Microsoft representative indicated that Netscape's response to Microsoft's offer of a "special relationship" would determine whether Netscape received this information immediately or in three months. Subsequently, despite Netscape's repeated requests for this information, Microsoft withheld it until late

October, more than three months later. The delay forced Netscape to postpone the release of its Windows 95 browser, causing it to miss most of the holiday selling season;

- b. Microsoft withheld a scripting tool that Netscape needed to make its browser compatible with certain ISPs. In mid-August 1995, a Microsoft representative informed Netscape that Microsoft was linking the grant of a license for the scripting tool to the resolution of all open issues. Netscape never received the license and, as a result, was unable for a time to do business with certain ISPs;
- c. Microsoft conditioned the placement of an Internet Service Provider on the "Internet Connection Wizard" screens or in the Online Services folder in Windows 95 on the ISP's agreement to deny most or all of its subscribers a choice of Internet browser. At the time, approximately one-third of Internet browser users obtained their browsers from their service provider, so Microsoft's exclusionary agreements with these firms had a substantial foreclosure effect on Netscape Navigator and other browsers;
- d. Microsoft entered into exclusionary agreements with Internet Content Providers such as Disney, Hollywood Online, and CBS Sportsline, which provide news, entertainment, and other information from sites on the Web. In order to achieve priority placement on the Windows desktop screen after installation of Internet Explorer, Microsoft required ICPs to agree: (i) not to compensate manufacturers of "other browsers" (defined as either of the two top non-Microsoft browsers) by distributing its browser or by payments to the other browser for distributing, marketing, or promoting the ICP content; (ii) not to promote any other browser;

- (iii) not to allow any other browser to promote the ICP channel content; and (iv) to design the ICP Web sites using Microsoft-specific programming extensions so that the sites looked better with Internet Explorer than with a competing browser;
- e. Microsoft imposed license restrictions that prevented OEMs from altering the Windows 95 boot-up sequence. These restrictions increased Microsoft's ability to require preferential treatment for Internet Explorer from ISPs and ICPs in return for access to the Windows desktop. These restrictions also limited an OEM's ability to substitute or feature a non-Microsoft browser or other application;
- f. Microsoft bundled Internet Explorer with Windows 95 in licensing agreements with OEMs, in order to foreclose choice by OEMs;
- g. Microsoft tied, both contractually and technically, Internet Explorer to Windows 98 and subsequent versions of Windows.

173. The result of Microsoft's campaign against Netscape Navigator was a dramatic reversal in market share. Navigator's share fell from above 80 percent in January 1996 to 55 percent in November 1997, and Internet Explorer's share rose from five percent to 36 percent over the same period. Internet Explorer's share by the latter part of 1998 had reached approximately 50 percent. IE's share has been steadily rising as Windows 95 users have converted to Windows 98 and to subsequent versions of the operating system. Recent estimates place Internet Explorer's share at more than 90 percent of the market.

Microsoft's Licenses Issued to Original Equipment Manufacturers

174. In its continuing "jihad" to win the "browser war" Microsoft has gone to the extreme of controlling the content of the computer screen that the PC end user sees. To that end, Microsoft abused its Windows operating system monopoly by requiring OEMs to agree, as a

condition of acquiring a license to the Windows operating system, to adopt the uniform "boot-up" sequence and "desktop" screen that Microsoft has dictated. The "boot" sequence determines the screens that every user sees upon turning on a Windows-based PC. Microsoft's exclusionary restrictions also prohibited, among other things, any changes by an OEM that would remove from the PC any part of Microsoft's Internet Explorer software. OEMs were also prohibited by Microsoft from adding to the PC a competing browser in any more prominent or visible way than the way Microsoft required Internet Explorer to be presented.

175. Beginning in or about August 1996, Microsoft prohibited sellers of personal computers from altering the Windows 95 boot sequence. Specifically, Microsoft's license agreements prohibited OEMs from:

- a. Modifying or obscuring the sequence or appearance of any screens displayed by Windows from the time the user first begins the boot-up process with a new personal computer until the "Welcome to Windows" screens have run and the Windows desktop screen first appears;
- b. Modifying or obscuring the sequence or appearance of any screens displayed by Windows on all subsequent boot-ups unless the purchaser initiates some action to change the sequence;
- c. Displaying any content, including visual displays, sound, welcome or tutorial screens, until after the Windows desktop screen first appears;
- d. Modifying or obscuring the appearance of the Windows desktop screen, beyond a narrowly limited range of permitted changes; or
- e. Adding a screen that would automatically appear after the initial boot-up sequence or in place of the Windows desktop screen.

176. These anti-competitive restrictions preserved the advantageous desktop position that Microsoft secured for Internet Explorer and other Microsoft or Microsoft-designated software. The restrictions also foreclosed competing Internet browsers from securing preferential placement on PC desktops, and foreclosed OEMs from choosing among competing browsers on the merits. The effect of these restrictions was significantly to restrict the access of competing browsers to the important OEM channel and thereby fortify Microsoft's personal computer operating systems monopoly.

177. As described above, several OEMs (including MicronPC, Hewlett-Packard, and Gateway) requested that Microsoft allow them to provide new personal computer purchasers with an alternative user interface, boot-up sequence, or initial or default screens. Microsoft refused these requests.

178. Microsoft recognized that its control over the desktop screen gave Microsoft a strategic advantage in the provision of software, advertising and promotion. Microsoft intended by its anti-competitive restrictions to consolidate that power.

179. As the D.C. Circuit recognized in *Microsoft III*, these exclusionary restrictions (with the minor exception of the prohibition against launching user interfaces that “automatically prevent[ed] the Windows desktop from ever being seen”) were not reasonably necessary to further any legitimate, pro-competitive purpose and furthermore impaired competition in an unnecessarily restrictive way.

180. Microsoft's exclusionary contracts thereby foreclosed Netscape from access to customers, and further impeded their ability to distribute Java and other software capable of eroding Microsoft's operating systems monopoly. Such exclusionary conduct also suppressed the development of newer secure browsers.

Contractual and Technological Bundling of Internet Explorer with Windows

181. Internet Explorer is recognized by both Microsoft and the industry as a distinct product separate and apart from Windows. For example:

- a. Microsoft has sold Internet Explorer separately at retail, distributed it separately through the Internet, and paid for it to be distributed separately;
- b. Microsoft has distributed Internet Explorer as a separate product through Internet Service Providers and other channels and has conditioned the access of numerous companies (*e.g.*, Internet Content Providers and Internet Service Providers) to Windows facilities on such companies' distribution of Internet Explorer as a separate product;
- c. Microsoft and the industry have separately tracked browser market share and operating system software market share;
- d. Microsoft has bundled stand-alone versions of Internet Explorer with other application programs (*e.g.*, Word, Works, Encarta);
- e. Microsoft has promoted, and has enlisted others to promote, the distribution and use of Internet Explorer as a separate product;
- f. Internet Service Providers consider Internet Explorer to be a separate product from Windows and, recognizing the demand for a browser separate from the operating system software, Microsoft has deliberately marketed it as such to Internet Service Providers;
- g. Internet browsers and operating system software perform different functions; and
- h. Microsoft has marketed--and continues to market--Internet Explorer for non-Windows operating system software, including operating system software

produced by Apple. Indeed, Microsoft devoted substantial effort in developing these versions of its Internet Explorer in order to foreclose opportunities for non-Microsoft browsers to establish themselves).

182. There is demand for Internet browsers that is separate from the demand for Microsoft's operating system software. For example:

- a. Many personal computer users (who, of course, require an operating system) do not need or want a browser;
- b. For many customers, the forced inclusion of a browser with the operating system software is a significant negative—including corporate customers who do not want their employees connected to the Internet and customers that would prefer a different browser. Microsoft has acknowledged that some sellers of personal computers and personal computer users want to be able to delete Internet Explorer from Windows and previously provided the ability, through the “Add/Remove” utility, for them to do so; and
- c. Other personal computer customers want an up-to-date Windows operating system together with non-Microsoft browsers.

183. Microsoft recognized that it could not compete with Netscape on the merits. As Microsoft's Christian Wilfeuer wrote in February, 1997, Microsoft had concluded that it would "be very hard to increase browser share on the merits of [Internet Explorer] alone. It will be more important to leverage the [operating system] asset to make people use [Internet Explorer] instead of Navigator." To leverage its operating system, Microsoft tied the implementation of Windows 98 (and subsequent versions of Windows) with Internet Explorer, so that IE could not be simply uninstalled. Moreover, even if Netscape Navigator is chosen as a default browser,

Windows 98 (and subsequent versions of Windows) is written to override the user's choice in certain circumstances. As Brad Chase of Microsoft wrote to his superiors near the end of 1995, "We will bind the shell to the Internet Explorer, so that running any other browser is a jolting experience."

184. Even before it bound Internet Explorer to Windows with "technological shackles," though, Microsoft began tying Internet Explorer to Windows with "contractual shackles." Microsoft unlawfully required OEMs, as a condition of obtaining licenses for the Windows 95 operating system, to agree to license and pre-install Internet Explorer on every Intel-compatible PC that they shipped with Windows 95 pre-installed. Windows' monopoly position made it a commercial necessity for OEMs to pre-install Windows 95 on virtually all of the PCs they sold. Microsoft thereby unlawfully leveraged its operating system monopoly to require PC manufacturers to license and distribute Internet Explorer on every PC those OEMs shipped with Windows, with the purpose and effect of foreclosing Netscape's Web browser, which (as described above) threatened to erode the applications barrier to entry sustaining Microsoft's operating systems monopoly.

185. Microsoft bundled its Internet Explorer software with Windows 95 not because Microsoft believed the market wanted only a bundled product but rather to foreclose choice by personal computer sellers and ultimately their customers.

186. Microsoft recognized that such restrictions were necessary to build Internet Explorer's market share and to foreclose the important OEM channel to Navigator. By foreclosing personal computer choice, Microsoft substantially foreclosed Netscape from a significant channel of distribution, and as a consequence suppressed competition with the Windows operating system software monopoly.

187. These exclusionary restrictions were not reasonably necessary to further any legitimate pro-competitive purpose and furthermore the restrictions impaired competition in an unnecessarily restrictive way. Microsoft has distributed—and continues to distribute—Internet Explorer separately from its Windows operating system software, and it is efficient for it to do so. Microsoft could also efficiently distribute or permit the distribution of Windows without Microsoft's Internet browser software.

188. Recognizing that its contractual restrictions on OEMs “would not be sufficient in themselves to reverse the direction of Navigator’s usage share... Microsoft set out to bind [Internet Explorer] more tightly to Windows 95 as a technical matter.” Findings of Fact ¶ 160.

189. Microsoft designed Windows 98 (and subsequent versions of Windows) so that removal of Internet Explorer by OEMs or end users is operationally more difficult than it was in Windows 95. Microsoft undertook several measures to bind “Internet Explorer to Windows with... technological shackles.” Conclusions of Law at 39. These included, *inter alia*, excluding Internet Explorer from the Add/Remove Programs utility in Windows and commingling code relating to browsing with other code in the same files so that any attempt to delete the files containing Internet Explorer would cripple the operating system.

190. Although it is nevertheless technically feasible and practicable to remove Microsoft's Internet Explorer browser software from Windows and to substitute other Internet browser software, OEMs were prevented from doing so by Microsoft's contractual tie-in. Microsoft has thus continued this practice begun with Windows 95, with the unlawful purpose and effect of foreclosing Netscape’s Web browser, thereby preserving the applications barrier to entry sustaining Microsoft's operating systems monopoly. The net result of this unlawful activity is higher prices for Plaintiffs and members of the Classes.

Exclusionary Agreements with Internet Access Providers (IAPs)

191. Microsoft entered into anti-competitive agreements with major Internet Access Providers for the exclusive or nearly exclusive distribution of Internet Explorer.

192. Starting in early 1996, as a condition for placement of an IAP on the “Internet Connection Wizard” screens or the Online Services folder in Windows 95, Microsoft began to require Internet Access Providers to agree to deny most or all of their subscribers a choice of Internet browser.

193. Microsoft’s restrictions on the ability of OEMs to modify the boot sequence or otherwise alter the appearance of Windows enhanced Microsoft's ability to provide preferential placement on the desktop and in the boot-up sequence to various Internet Access Providers in return for those firms' commitments to give preferential distribution and promotion to Internet Explorer and to restrict their distribution and promotion of competing browsers.

194. As a result, these restrictions further exclude competing Internet browsers from the most important channels of distribution, and are therefore other means by which Microsoft has used the virtual universality of its Windows operating system monopoly to maintain the applications barrier to entry that competing Internet browsers have threatened to erode by distributing Java and becoming platforms that could substitute for Windows.

195. In its agreements with IAPs, Microsoft leveraged its operating system monopoly by imposing the requirements that the IAPs offer Microsoft's Internet Explorer browser primarily or exclusively as the browser they distribute; that they refrain from promoting or mentioning to their subscribers the existence, availability, or compatibility of any competing Internet browser; and that they use on their own Internet sites Microsoft-specific programming that makes those sites look better when viewed through Internet Explorer than when viewed through competing

Internet browsers; that they eliminate links on their web sites from which their subscribers could download a competing browser over the Internet; that they include Internet Explorer as the only browser they ship with their access software (i.e., the software that enables a personal computer user to subscribe to the service) most or all of the time; and that they limit the percentage of competing browsers they distribute, even in response to specific requests from customers.

196. Microsoft's agreements with Internet Access Providers also required the IAPs to use Microsoft-specific programming extensions and tools in connection with the IAP's own web sites. Web sites developed with these Microsoft-specific programming extensions and tools will consequently look better when they are viewed with Internet Explorer than with a non-Microsoft browser.

197. Under Microsoft's IAP contracts, the penalty for promoting a competing browser, for distributing a competing browser more than permitted by Microsoft, or for otherwise failing to provide preferential treatment for Microsoft's Internet browser, was deletion from the Windows desktop. Even the largest Internet Access Providers were unwilling to risk this penalty.

198. Microsoft recognized the importance to Internet Access Providers of favorable placement on Windows screens. For example, Brad Silverberg (Microsoft's former Senior Vice-President of its Applications and Internet Client Group) described such placement as "a distribution facility" for service providers that is of "tremendous value to them."

199. Approximately one-third of Internet browser users obtained their browsers from their service provider; hence Microsoft's exclusionary agreements with those firms substantially foreclosed Microsoft's browser competitors from a vital means of distribution.

200. The exclusionary restrictions in Microsoft's IAP agreements were not reasonably

necessary to further any legitimate procompetitive purpose and impaired competition in an unnecessarily restrictive way.

201. Microsoft's exclusionary IAP contracts, expressly targeted at its primary Internet browser competitors, further foreclosed non-Microsoft browser developers from access to customers and further impeded their ability to distribute Java and other software capable of eroding Microsoft's operating systems monopoly.

Microsoft's Predatory Response to Sun Microsystems' Java Technologies

202. Sun Microsystems, Inc. announced in May 1995 that it had developed the Java programming language. The inventors of Java intended the technology to enable applications written in the Java language to run on a variety of platforms with minimal porting. This was a significant development because the easier it is for developers to port their applications to different operating systems, the more applications will be written for operating systems other than Windows.

203. Microsoft executives almost immediately became deeply worried about the potential of Sun's Java technologies to diminish the applications barrier to entry protecting Microsoft's operating systems monopoly. In May 1995, Netscape agreed to include a copy of Sun's Java runtime environment with every copy of Navigator, and Navigator quickly became the principal vehicle by which Sun placed copies of Java on the PC systems of Windows users.

204. In 1996, senior executives at Microsoft became aware that the number of developers writing network-centric applications in the Java programming language had become significant and that Java was likely to increase in popularity among developers. Microsoft therefore became interested in maximizing the difficulty with which applications written in Java could be ported from Windows to other platforms, and vice versa. Microsoft engaged in various

anti-competitive acts to accomplish this purpose, including:

- a. Microsoft discouraged developers from using Java. In 1997, Sun added a class library called Remote Method Invocation ("RMI"), which allowed Java applications written upon it to communicate with each other in certain useful ways. Microsoft's license agreement with Sun required Microsoft to offer RMI. However, because this would allow Java developers to make applications more portable, Microsoft took action to prevent access to RMI. Microsoft buried the RMI link in an obscure location and did not include an entry for it in the site's index. Referring to Java developers who might access Microsoft's site looking for RMI, a Microsoft employee wrote to his approving manager "They'll have to stumble across it to know it's there. . . . I'd say it's pretty buried.";
- b. Microsoft licensed and then corrupted Java, by creating Microsoft-specific Java development tools and a Windows-compatible Java runtime environment that made porting more difficult than with the Sun version of Java. Microsoft continued to refuse to implement Sun's RMI method until November 1998, when a court ordered it to do so;
- c. Microsoft discouraged business allies, such as Intel, from cooperating with Sun, threatening that cooperation would jeopardize the business relationship between Microsoft and the ally; and
- d. In agreements signed with ISVs in 1997 and 1998, Microsoft conditioned early Windows 98 and Windows NT betas, other technical information, and the right to use certain Microsoft seals of approval, on the agreement of those ISVs to use Microsoft's version of the Windows Java as the "default." Microsoft entered into

an agreement with at least one ISV that explicitly required it to redistribute Microsoft's Java to the exclusion of any other.

Microsoft's anti-competitive attacks upon Java, coupled with its limitation of a primary distribution vehicle, Netscape Navigator, effectively eliminated the Java threat to the applications barrier.

205. Microsoft continues to engage in various anticompetitive acts designed to further eliminate competition in the operating systems market. For instance, Microsoft refuses to distribute any implementation of the Java runtime on its Windows XP operating system. Unless OEMs separately install a JVM, the first time that a consumer running Windows XP encounters a web page requiring a JVM, Windows XP generates a notice that in order to display the web page correctly, the user must download and install the Microsoft Windows-compatible Java runtime environment. If the consumer then selects the download option, the user has automatically been directed to a Microsoft web site from which the Microsoft Windows-compatible Java runtime environment is downloaded and installed.

206. Having illegally debilitated the vendor-independent Navigator/Java middleware platforms that threatened its PC operating system monopoly, Microsoft is now exploiting its illegal monopolies to leverage market share for its own middleware platform, one that, in sharp contrast to the Navigator/Java middleware platforms, is Microsoft specific. Microsoft refers to its new Microsoft-specific middleware platform as the .NET framework. When the potential of the Navigator and Java platforms to capitalize on the Internet paradigm became apparent, Microsoft was neither poised nor well-suited to provide a competitive alternative to those platforms. Now that it has illegally crushed the threat poised by the Navigator and Java middleware platforms, and thereby bought itself years of time to clone much of the functionality

of the Java platform, Microsoft has touted the belated introduction of its new .NET middleware platform as its most important initiative, one that will fundamentally transform its own business and the Internet in general. Just as it developed the Windows platform on top of MS-DOS in order to encourage developers to write to the new platform, Microsoft now will provide the .NET Framework as a middleware layer on top of Windows, and encourage developers to increasingly write their applications to this new platform, gradually obsolescing the Windows platform and transferring Microsoft's monopoly from the PC operating system to the middleware layer. Microsoft hopes to use its ill-gotten .NET market share to leverage market share in the increasingly important realm of server-based computing, a realm that currently poses the greatest threat to Microsoft's desktop hegemony. By infusing .NET with Microsoft-specific interfaces and protocols shared by the Microsoft servers facilitating dynamic web services, Microsoft threatens to control, and render Microsoft-specific, the market for dynamic web services and other server-based computing. Microsoft also hopes to leverage its .NET market power to increase its market share in the adjacent market of embedded devices.

Streaming Media Technologies

207. Just as it perceived a threat from web browsers, Microsoft also saw a threat from streaming media software. As the district court found in *Microsoft III*:

In 1997, senior Microsoft executives viewed RealNetworks' streaming [media] software with the same apprehension with which they viewed Apple's [QuickTime] playback software—as competitive technology that could develop into part of a middleware layer that could, in turn, become broad and widespread enough to weaken the applications barrier to entry [which protected Microsoft's operating systems monopoly].

Findings of Fact ¶ 111, 84 F. Supp. 2d at 37

208. RealNetworks is a pioneer in the field of digital media, particularly streaming

media—a technology for delivering audio and video content over networks like the internet. In 1995, RealNetworks became the first company to offer commercially internet streaming media players and servers. RealNetwork's digital media players have been available on various platforms, including Apple's MacOS, Hewlett-Packard's HP UX, Sun's Solaris, IBM's AIX, and Linux.

209. In response to the threat posed by RealNetworks' streaming media technologies, Microsoft utilized many of the same anticompetitive tactics that it employed against Netscape's Navigator. In January 1999, Microsoft executive Anthony Bay sent Bill Gates an email outlining a plan for Microsoft to dominate the market for streaming media—and thereby protect its Windows operating system monopoly. Mr. Bay recommended that Microsoft “reposition streaming media battle from NetShow versus Real to Windows versus Real” and “follow the [Internet Explorer] strategy wherever appropriate.”

210. As part of its anticompetitive campaign against RealNetworks, Microsoft has given away its Windows Media products or even paid customers to take them. Microsoft has offered financial incentives to encourage OEMs to install Windows Media Player on their PCs. It has tied the Windows Media Server (recently renamed “Windows Media Services”) to its Windows server operating system products. Microsoft has also tied its Windows Media software to its Windows PC operating system

211. Microsoft has also refused to provide RealNetworks with technical information concerning the Windows operating system that would allow RealNetworks to make its media player fully competitive with Microsoft's Windows Media Player. For instance, Microsoft has refused to disclose, or delayed disclosing, the APIs and other technical information required for RealNetworks' software to make use of the Secure Audio Pathway or “SAP.” Microsoft has also

disclosed needed technical information in a discriminatory manner.

212. Microsoft has also engaged in anticompetitive conduct against Burst.com as part of its efforts to maintain the applications barrier to entry protecting its operating systems monopoly. Burst.com was the developer of core video streaming technology that would enable a provider to perform faster-than-real-time transmissions of time-based media over networks. As it has done with other smaller competitors, Microsoft was determined to “embrace, extend and extinguish” Burst.

Microsoft’s Predatory Response to Opera

213. Opera Software, a Norwegian-based ISV, developed the Opera Web browser, a high-quality, multi-platform product for a wide range of platforms, operating systems and embedded Internet products. A version of the Opera Web browser is available for the Windows platform.

214. In keeping with its efforts to undermine Navigator, Microsoft has engaged in an anti-competitive campaign against Opera as well. In October 2001, for example, users of the Opera Web browser—as well as other alternative non-Microsoft browsers such as Mozilla—discovered that they had been “locked out” from Microsoft’s MSN website. Instead, users of non-Microsoft browsers were given the option of downloading a version of Microsoft's Internet Explorer.

215. More recently, in February 2002, Microsoft began sending users of the Opera Web browser a faulty style sheet which determines the presentation of graphics and text in a browser window. When people using Opera 7 browser software visited MSN.com (which is published by Microsoft) some of the site content is obscured. Opera 7 received a style sheet very different from the style sheets used by the Microsoft and Netscape browsers. The Opera Web

browser was explicitly instructed to move content off the side of its container, thus creating the impression that there is something wrong with Opera 7. Not only did the code sent to Opera users not work in Opera 7, it did not function in Microsoft's own Internet Explorer 6.

216. On information and belief, Microsoft's anti-competitive actions directed at Opera (consistent with its FUD campaigns against DR-DOS and others) were intended to create the belief among end users that the Opera Web browser was to blame for the problem. The actions were further intended to prevent the cross-platform Opera Web browser from gaining the critical mass necessary to pose a threat to the applications barrier to entry.

Microsoft's Predatory Conduct In The Workgroup Server Market.

217. As the District Court for the District of Columbia observed in November 2002, "the Court concludes that one of the technologies identified by Plaintiffs, server/network computing, has the capacity to function in a role akin to middleware, and thereby increase competition in the relevant [PC OS] market." Microsoft also recognized the threat posed by workgroup server operating systems and, in a manner essentially identical to its attacks on applications, middleware and PC operating system competitors, developed a strategy to monopolize the workgroup server market.

218. Microsoft implemented a three-pronged strategy for eliminating competition in the workgroup server market. First, Microsoft used its logo and certification programs for its PC operating system to coerce developers to write applications that would also run on its workgroup server operating system. Second, Microsoft intentionally acted to lock out rivals like Sun and Samba from the workgroup server operating system market by refusing to disclose technical information necessary to interoperation and by degrading the limited interoperability that previously existed in the marketplace between Microsoft's PC operating system and non-

Microsoft workgroup server operating systems. Third, Microsoft bundled critical networking functions and features into its PC operating system products, but then designed those functions and features so that customers cannot fully use that functionality unless they also purchase Microsoft's workgroup server operating systems. As a result, consumers could not substitute a non-Windows server operating system if they wished to use all of the Windows PC functionality they purchased as part of their PC operating system. In short, Microsoft has designed its PC operating system monopoly products to require Microsoft workgroup server operating systems in order to access and utilize the full functionality contained in the PC operating system.

219. By intentionally denying non-Microsoft workgroup servers the same ability to interoperate with the functions and features of the PC operating system that are necessary and central to interoperation with workgroup servers, while making those same functions and features fully accessible only to Microsoft workgroup servers, Microsoft has increased the switching costs for consumers by increasing the products that must be replaced from the PC operating system alone to the PC operating system and every Microsoft device or product that connects to it. As Michael Tiemann, Chief Technology Officer with Red Hat, Inc.—a Linux developer—testified in the remedies proceedings in *New York v. Microsoft Corp.*, Microsoft's conduct in the workgroup server market raised barriers to Linux gaining acceptance on the PC desktop.

MICROSOFT'S ANTI-COMPETITIVE ACTIVITIES IN THE APPLICATIONS SOFTWARE MARKETS

Overview

220. Much of the anti-competitive activity described above affected competition not only in the operating systems market, but also in the relevant applications markets.

221. Microsoft also abused and leveraged its monopoly power in the operating systems market to gain unfair advantages in the relevant applications software markets.. As part of its anti-competitive campaign in those markets, Microsoft refused to provide competing software developers adequate technical disclosures about its operating systems. Given the prevalence of Microsoft operating systems on the desktop—and the fact that Microsoft’s own application developers were provided access to the technical underpinnings of MS-DOS and Windows, including “undocumented” APIs that were not made available to rival applications and middleware developers—such technical information was essential for applications developers to compete. Microsoft’s anti-competitive conduct in adjacent applications markets not only resulted in Microsoft gaining additional monopolies in those markets, it also had the simultaneous effect of re-enforcing the applications barrier to entry, and thus strengthening Microsoft’s operating systems monopoly.

222. Microsoft displaced the dominant spreadsheet program (Lotus 1-2-3) by engaging in a calculated effort beginning in 1989 to convince Lotus Development Corporation to write its next spreadsheet version to run on OS/2 without disclosing that Microsoft had already decided to abandon OS/2 in favor of MS-DOS and Windows. When Microsoft finally disclosed its intentions concerning OS/2, Microsoft had already gained a first-mover advantage in spreadsheet applications on the Windows platform.

223. Furthermore, Microsoft’s anti-competitive efforts to take market share from Navigator were designed to protect Microsoft’s dominance in office suites and word processing software on the Windows platform (in addition to protecting Microsoft’s operating system monopoly). Microsoft understood that the growth in the popularity of email as a means of communication within and between businesses and other organizations greatly diminished such

organizations' interest in word processing programs such as Word and (by extension) office suites such as Office. Microsoft's unlawful attack on Navigator's market share thus was also aimed at preventing Netscape from using Navigator as a beachhead on the desktop to push email as a new "killer app" that would threaten traditional office suite applications such as word processors.

Developers' Need for Access to Microsoft's Operating System Code

224. As a result of its unlawfully gained monopoly in the operating systems market, Microsoft had control of ISVs to compete in the market for Intel-compatible PC applications software, including word processors and spreadsheet software.

225. By unreasonably refusing, limiting and manipulating its actual and potential competitors' access to technical specifications for its operating systems products, while preferentially or freely granting its own applications developers such access (and through its other unlawful acts alleged herein), Microsoft unreasonably and unlawfully advantaged itself in the relevant applications software markets alleged herein, and as a consequence acquired and/or maintained monopolies in those markets, and unlawfully inflated the prices it charged for the relevant applications software.

226. Implicitly recognizing the need for competing applications developers to have access to its operating system code on an equal basis with its own applications developers, some Microsoft executives falsely claimed that it had created a "Chinese wall" that prevented its own applications software developers from having preferential access to its operating system source code or to the employees working on that code.

227. Microsoft could have easily provided timely access to its operating system specifications to competing software vendors and others in the normal course of business, but

chose instead to preclude, limit or delay such access in order to acquire and/or maintain monopoly power in the relevant applications software market.

228. Microsoft has unlawfully exploited its control over its de facto standard operating systems to maintain and/or perpetuate its monopolies in the relevant applications software markets.

229. Microsoft, through its control over these de facto standards and through monopolies in the relevant markets, has denied Plaintiffs and members of the Classes the fundamental right to product choice, and has forced Plaintiffs and the members of the Classes to pay supra-competitive prices and suffer other damages for the relevant applications software products.

Microsoft's Abuse and Leveraging of its Operating Systems Monopoly

230. Microsoft has pursued a strategy of using its power in the market for Intel-compatible PC operating systems as leverage, through anti-competitive acts and marketing and technical links, to acquire and/or maintain monopoly power in the relevant applications software markets. The anti-competitive acts used by Microsoft to acquire and/or maintain its monopoly power in the operating system market also have allowed Microsoft to target and monopolize the applications software markets for Intel-compatible PC word processing and spreadsheet software.

231. Microsoft has obtained power in the relevant applications markets by, among other things, giving its own applications software developers early and complete access to the revised code developed in successive versions of its monopoly operating systems. To compete with Microsoft's applications software, non-Microsoft developers must have timely access to Microsoft's operating system APIs, as well as to other operating system information.

232. To maintain its dominance over, and supra-competitive prices in, the applications software markets, Microsoft has engaged in the following anti-competitive conduct, among others:

- a. Microsoft failed to timely disclose the APIs for MS-DOS and Windows to software developers who needed such information to create applications software compatible with Microsoft's operating system while using those undocumented APIs in its own applications software;
- b. Microsoft impeded competing ISV's development efforts by providing them with incomplete operating system code, forcing them to accept restrictive licenses, and barring them from attending supposedly open software development conferences at Microsoft;
- c. Furthermore, Microsoft impeded competing ISV's development efforts by denying promised promotional and marketing support, forcing distributors and dealers to exclude ISV's from their promotions, and denying ISV's promised access to Windows' user mailing lists;
- d. Microsoft intentionally made its operating system incompatible with or difficult to operate with competitors' applications software;
- e. Microsoft threatened OEMs that they would receive a license for Windows only if they agreed not to offer competitors' non-Microsoft applications software;
- f. Microsoft threatened OEMs that it would increase the price for its operating systems if the OEMs distributed non-Microsoft applications software;
- g. Microsoft threatened to withhold from OEMs market development funds if the OEMs distributed non-Microsoft applications software;

- h. Microsoft threatened OEMs that Microsoft would withhold technical support for Microsoft's operating systems, including Windows, if the OEMs offered competitors non-Microsoft applications software; and
- i. Microsoft used other exclusionary license terms, such as "per system" licenses, with OEMs.

233. In its Findings of Fact, the District Court in *Microsoft III* gave specific examples of Microsoft's anti-competitive behavior in regard to its applications software, including its attempts to preclude IBM's installation of its own Lotus SmartSuite bundle of office productivity software on PCs manufactured by IBM. Findings of Fact at ¶¶ 115-132. Specifically, the District Court found that "[w]hen IBM refused to abate the promotion of those of its own products that competed with Windows and Office, Microsoft punished the IBM PC Company with higher prices, a late license for Windows 95, and the withholding of technical and marketing support." Findings of Fact at ¶¶ 116, 118-131.

"Misdirection" of Development Efforts Towards OS/2 Instead of Windows

234. In the early 1990s, Lotus 1-2-3 had the dominant share of the Intel-compatible PC spreadsheet software market. In 1994, Microsoft engaged in a calculated effort to persuade Lotus to write its next version of Lotus 1-2-3 to run on OS/2 rather than Windows. At the very time that Microsoft was engaged in those efforts, however, it had already decided for itself to abandon any further development efforts for OS/2 and to focus instead on further developing Windows. Microsoft withheld this critical decision from Lotus.

235. Microsoft's deception was successful: Lotus wrote its next spreadsheet version for OS/2, thereby misdirecting huge sums of money in virtually worthless development efforts. Microsoft timely released its next spreadsheet version to run on Windows and took substantial

market share from Lotus.

OLE and OpenDoc

236. By the late 1980s, various software developers, including Lotus and Word Perfect, had begun working on developing technology that would allow computer users to assemble information from multiple sources into a single document. At the same time, Microsoft was working on developing its own proprietary compound document technology that became known as object linking and embedding (“OLE”).

237. In 1990, Microsoft invited Lotus and other developers to begin discussions aimed at defining an industry standard for communicating between applications. Notwithstanding this invitation, though, Microsoft went ahead and unilaterally released its proprietary OLE technology. Had Lotus or Word Perfect known of Microsoft’s intentions, the companies could have developed and shipped their products earlier with the linking technology they had started developing in 1989.

238. Microsoft subsequently revised its OLE technology pursuant to requests from its Excel developers without timely releasing those revisions to competing developers. As a result, Microsoft’s Excel developers had the opportunity for input and early knowledge of the resulting modifications that were unavailable to Microsoft’s competitors. Microsoft’s competitors suffered delays of many months as they were forced to rewrite their own applications to make them perform under the OLE revisions. Those delays before Lotus and Word Perfect could ship OLE-enabled products harmed the reputations of those developers, limited consumer choice, and enabled Microsoft to charge supra-competitive prices.

239. Microsoft vigorously opposed an alternative open standard called “OpenDoc” which would have freed developers from Microsoft’s attempts to dictate the way applications

software was developed. OpenDoc would also have reduced the costs to developers of porting their applications to other platforms. Microsoft punished competitors who supported the open standards by, among other things, providing those competitors "special" versions of the beta software that lacked key information necessary for development of software products running on Windows. Furthermore, Microsoft forced software developers to sign non-disclosure agreements that barred them from receiving information on Windows 95 if they did not support Microsoft's OLE.

Microsoft's Predatory Acts Specifically Targeted at Netscape and Java

240. Netscape's browser, as already noted, threatened to weaken the applications barrier to entry that protected Microsoft's monopoly in the operating system market. Microsoft also recognized, moreover, that Navigator posed a dangerous threat to its applications software monopoly, particularly office suites and word processors. As one Microsoft executive wrote:

Netscape is using their position with the browser as a foothold onto the desktop to push e-mail and collaboration as the new killer applications. Any Office Suite in the near future will have mail as its core component. As e-mail use becomes pervasive in organizations, it will replace Word (and by extension Office) as the most critical end user app in organizations.... Netscape is working hard to offer a compelling application development platform, which if successful, will greatly diminish corporation's interests in our Office products.... The threat of continued low mail client share in organizations and with consumers is that our competitors gain control of the desktop, where they can switch existing Office users to their solutions, sell upgrades, and drive server share with a cohesive client-server solution.... In summary, we must keep our focus on browser share. This is central to the success of Windows and central to the success of Office. By focusing on IE today, we not only secure the desktop and secure future Windows sales, but also gain a user base that we can upgrade to Outlook then Office.

241. Moreover, if the browser and Java innovations described above succeeded, Microsoft would lose the competitive advantage of owning the interface with its Windows operating system software. Were it not for the exclusionary conduct by Microsoft set forth

above, word processing and spreadsheet software applications that compete with Microsoft Word and Excel could be written for the open Java platform, and not be limited to Microsoft's operating system software. As a consequence, Microsoft would lose its capacity to exclude its Word and Excel competitors.

242. Microsoft's predatory acts directed at Navigator, therefore, were designed not just to protect Microsoft's operating system monopoly, but also its monopolies in the word processing and offices suites markets.

Microsoft's Restrictions on Boot-up Sequence and Screens to Protect the Application Software Monopolies

243. Microsoft's boot-up and desktop licensing agreements, as set forth above, have the purpose and effect of also suppressing application software competition in addition to the suppression of browser and Java innovation.

244. Such agreements entrench the Windows monopoly of the relevant markets for personal computer word processing and spreadsheet software by raising distribution barriers to entry by competing sellers of word processing and spreadsheet software.

Microsoft's Anti-competitive Use of Its Office Suite Monopoly

245. Microsoft uses its control of the office productivity suite market to protect its PC operating system monopoly. Because office productivity suites are the primary way in which the majority of users interact with their PC, Microsoft Office is a strategically important weapon that Microsoft wields to maintain and expand its monopoly. Office productivity suites constitute a critical basis for the application barrier to entry protecting Microsoft's PC operating system monopoly.

246. By controlling these critical applications, Microsoft controls whether they are

ported to competing platforms. If a company other than Microsoft controlled Office, it would be interested in porting its application suite to as many platforms as possible, assuming it was economically rewarding to do so. By contrast, if Microsoft ported Office to competing operating systems like Solaris or Linux, it would remove a critical part of the applications barrier protecting its PC operating system monopoly. Thus, Microsoft has refused to port Office to competing platforms in order to illegally maintain its monopoly, or it has used Office, in the case of the Macintosh operating system, to exact anticompetitive agreements in exchange for continued support on competing platforms.

247. Because Microsoft has had unique access and knowledge of the Windows APIs necessary for the development of office productivity suite applications, while denying competitors the same degree of access to such information, Microsoft was able to place its implementations at a significant competitive advantage as a result of its monopoly power. By providing Microsoft developers working on Office with earlier and better access to changes to the Windows APIs, Microsoft has advantaged Office over competing products like Corel's WordPerfect Office, IBM/Lotus's SmartSuite, or Sun's StarOffice.

248. By controlling Office, Microsoft also controls the file formats generated by these applications. To maintain its monopoly position and decrease competition, Microsoft has adopted Microsoft-specific file formats, thereby obstructing competitors' abilities to interoperate with such files. Consequently, competing office productivity suites, like Sun's StarOffice, are unable to read or duplicate these Microsoft-specific file formats in the same manner as Microsoft's Office. As a consequence, for example, a word processing document saved in Microsoft's standard Word format cannot be manipulated using StarOffice in the same manner that it can be manipulated using Microsoft's Word program. By precluding full interoperability

with competing office productivity applications, Microsoft obstructs competition.

249. Microsoft also uses its control of Office to create technical ties and dependencies that force consumers to purchase additional Microsoft workgroup server products, including Microsoft Exchange Server, Microsoft Internet Information Server, and Microsoft SQL Server. In order to effectively use all of Office's functionality in a networked client/server environment, a consumer must purchase these additional Microsoft products. As a result, if a firm later wishes to switch its office productivity suite or operating system, it will incur increased switching costs because it necessarily will have purchased and implemented not just Office, but a plethora of other Microsoft products as well. This interlocking web of technical ties and dependencies is intentionally designed by Microsoft to raise the barriers to entry protecting its monopoly positions by significantly raising switching costs. As distributed computing continues to become increasingly important, Microsoft's ability to exploit these ties and dependencies to drive additional server product sales only increases.

250. Microsoft also has used product pricing and bundling of Office itself to disadvantage competing products and maintain and expand the scope of its office productivity suite.

251. Microsoft also disadvantages office productivity applications by tightly integrating the applications bundled in Microsoft Office to ensure that competing productivity applications cannot provide the same set of functionality as the Microsoft programs.

**Microsoft's Practices Of Mischaracterizing
And/Or Withholding Of Data And Other Evidence**

252. On information and belief, Microsoft has tampered with evidence relevant to Plaintiffs and Class members' claims. Microsoft executives have instructed employees to delete

material email and/or other evidence despite pending investigations and litigation. For example, in Burst.com's lawsuit against Microsoft, Burst.com alleged that Microsoft implemented various institutionalized practices to make certain that incriminating documents and e-mail were not retained on Microsoft back-up servers or employee desktops.

253. While Plaintiffs understand that Microsoft's intentional destruction of and failure to preserve relevant documents and other evidence is not a cause of action under Iowa law, such conduct has harmed the ability of Plaintiffs and Class members to prove their claims for Microsoft's violations of the Iowa Competition Law.

CONSUMER HARM

254. Microsoft's exclusionary and restrictive practices described herein have caused significant harm to Plaintiffs and the members of the Classes by increasing the price they have paid for Microsoft's operating systems and relevant applications software above competitive levels and/or by denying them a free choice in a competitive market, as well as the benefits of software innovation.

255. By virtue of its monopolization of the relevant markets, Microsoft has succeeded in raising and reinforcing barriers to market entry so as to forestall the development of actual competition in the relevant markets. Its resulting monopoly power has enabled Microsoft to price its operating system and relevant applications software virtually without regard to the prices of competing software. Sellers of personal computers and distributors of Microsoft products have passed these monopoly prices onto consumers, including particularly to the Class members.

256. Microsoft's supra-competitive prices have given Microsoft profit margins for the products at issue many times the rates for other firms in the software industry. Microsoft's return

on equity has consistently been significantly higher than other firms in the software industry.

257. Microsoft's supra-competitive prices and extraordinary profits are not the result of superior products or competition on the merits. Instead, Microsoft has been able, at Class members' financial expense, artificially to inflate its profits only by engaging in a series of exclusionary acts and restrictive practices with the purpose and effect of restraining and preventing competition and unlawfully maintaining its monopoly of the relevant markets for personal computer operating, word processing and spreadsheet software.

258. Plaintiffs and the members of the Classes, as consumers in the markets for operating system and applications software, were within that area of the economy endangered by the breakdown of competitive conditions caused by Microsoft's unlawful conduct. Plaintiffs and the Class members were foreseeable and intended victims of Microsoft's monopolization, and their injury was inextricably intertwined with Microsoft's exclusionary and illegal conduct.

259. The antitrust violations of Microsoft do not arise from a single isolated transaction, or even a series of transactions. Microsoft's antitrust violations, as described herein, constitute a repeated, continuous course of numerous transactions that fundamentally shaped the markets for operating system and applications software such that, for all reasonable purposes, it may fairly be said that Microsoft's unlawful conduct became embedded in these markets.

260. Indeed, the supra-competitive price charged by Microsoft for its operating system and relevant applications software had become embedded in those markets well before the beginning of the Class Period.

261. Over the many years of its continuous unlawful conduct, Microsoft has maintained a captive OEM channel that functions as Microsoft's distributor for the large majority of all Microsoft operating system and applications licenses to end-users of PCs, with the

remainder of Microsoft's licenses reaching end-users through the "finished goods" channel, which includes large established retailers, distributors and resellers, and Microsoft itself. These OEMs and other distributors of Microsoft's operating system and applications software products do not, when acting in that capacity, suffer the supra-competitive cost and degradation of product. Instead, because of the highly competitive nature of these distribution channels and the imbedded nature of Microsoft's supra-competitive prices, the anti-competitive overcharges imposed by Microsoft at the top of the distribution chain are passed through to end users of Microsoft's software, including Plaintiffs and the Class members.

262. Given the ongoing nature of the unlawful conduct of Microsoft and the embedded nature of that conduct in the distribution system for Intel-compatible PC operating system and applications software, the absence of a class action remedy for Plaintiffs and the Class members would likely lead to the absence of any monetary sanction against Microsoft under the laws of the State of Iowa. In light of the relationship between OEMs and Microsoft as alleged and the fact that OEMs have elected not to sue Microsoft, there is absent any risk of duplicative recovery. In any event, to the narrow extent such duplication may exist, apportionment can reasonably be accomplished.

TOLLING OF APPLICABLE STATUTES OF LIMITATION

263. Any applicable statutes of limitation have been equitably tolled by Microsoft's affirmative acts of fraudulent concealment, suppression, and denial of the true facts regarding the existence of the monopolistic and anti-competitive practices at issue herein. Such acts of fraudulent concealment included intentionally covering up and refusing to publicly disclose critical internal memoranda, product development plans and other reports of anti-competitive practices. Through such acts of fraudulent concealment, Microsoft was able to actively conceal

from the public for years the truth about Microsoft's anti-competitive practices, thereby tolling the running of any applicable statutes of limitation. Moreover, Microsoft still refuses to this day to take full responsibility for its actions, vigorously denying all liability or even the existence of monopolistic conduct. By pleading certain of Microsoft's specific illegal acts, Plaintiffs do not intend to exclude from consideration at trial other illegal acts that Microsoft has taken and is taking to maintain its unlawful monopolies to the substantial and continuing detriment of Iowa consumers.

COUNT 1

264. Plaintiffs reallege the preceding paragraphs as if set forth fully herein.

265. As described above, beginning before the commencement of the Class Period and continuing to the present, Microsoft attempted to and did establish, maintain and/or use a monopoly of trade or commerce within the State of Iowa for the purpose of excluding competition and/or controlling, fixing or maintaining prices in the markets for operating systems for Intel-compatible PCs and for word processing and spreadsheet software.

266. There are significant barriers to entry in the market for operating systems and applications software for Intel-compatible personal computers.

267. Some of the specific acts engaged in by Microsoft to acquire and maintain its monopoly power in the Iowa market are described above. Such acts, and other acts, have unreasonably restricted competition in the relevant markets, and as a result Microsoft has monopoly power in those markets.

268. Microsoft's monopoly power in those markets was willfully and unlawfully acquired and maintained.

269. Pursuant to such acts by Microsoft to exclude competition, Microsoft has

suppressed product innovation and has licensed its products to end users without regard to competition, at a monopoly price in excess of what Microsoft would have been able to charge in a competitive market. Microsoft's illegal conduct has also harmed Plaintiffs and members of the Classes by significantly limiting the range of choices that a free market would have provided to them. Certain innovative products and technologies that would have truly benefited consumers never occurred or were prevented from reaching the market because such products and/or technology did not coincide with Microsoft's self-interest.

270. Microsoft has reaped and continues to reap enormous profits by virtue of its unlawful conduct.

271. As a direct result of Microsoft's conduct, Plaintiffs and members of the Classes incurred the supra-competitive price charged by Microsoft for their use of Microsoft operating system and relevant applications software and suffered additional damages from, *inter alia*, being denied a free choice in a competitive market as well as the benefits of software innovation, as more fully set forth herein. By asserting specific types of damages, Plaintiffs and members of the Classes do not intend to exclude from their request for recovery any damages permitted them under Iowa law for Microsoft's illegal conduct. The conduct described in the preceding paragraphs constitutes the establishment, maintenance or use of a monopoly for the purpose of excluding competition or controlling, fixing or maintaining prices in violation of § 553.5, Code of Iowa 2001.

272. Plaintiffs and the members of the Classes are entitled to recover their damages under § 553.12, Code of Iowa, 2001.

COUNT 2

273. Plaintiffs reallege the preceding paragraphs as if set forth fully herein.

274. As described above, beginning before the commencement of the Class Period and continuing to the present, Microsoft and others entered into an illegal contract, combination or conspiracy in unreasonable restraint of trade in the relevant markets at issue herein, in violation of the Iowa Competition Law, Iowa Stat. § 553.4.

275. Microsoft has reaped and continues to reap enormous profits by virtue of its unlawful conduct.

276. As a direct result of Microsoft's conduct, Plaintiffs and members of the Classes incurred the supra-competitive price charged by Microsoft for their use of Microsoft operating system and relevant applications software and suffered additional damages from, *inter alia*, being denied a free choice in a competitive market as well as the benefits of software innovation, as more fully set forth herein.. By asserting specific types of damages, Plaintiffs and members of the Classes do not intend to exclude from their request for recovery any damages permitted them under Iowa law for Microsoft's illegal conduct.

277. Plaintiffs and the members of the Classes are entitled to recover their damages under § 553.12, Code of Iowa, 2001.

WHEREFORE, Plaintiffs, individually and on behalf of each Class, pray for judgment and relief against Microsoft as follows:

A. An order of this court certifying this action to proceed as a class action with Plaintiffs as proper class representatives;

B. Plaintiffs and the members of the Microsoft Operating Systems Software Class

and the Microsoft Applications Software Class recover their damages, as follows:

- i. the overcharges;
- ii. damages for the lack of free choice among competing products and the denial of benefits of software innovation;
- iii. damages for security breaches caused in whole or in part by Microsoft's illegal conduct; and
- iv. additional damages proved at trial;

all in an amount to be determined at trial, plus exemplary damages equal to twice the damages they have sustained, and will sustain, as a result of the violations alleged herein, pursuant to § 553.12, Code of Iowa 2001;

C. Plaintiffs and the members of the Classes recover reasonable attorneys' fees and costs for pursuing this claim;

D. Plaintiffs and the members of the Classes recover interest as allowed by law; and

E. Plaintiffs and members of the Classes receive such other relief as the Court deems just in the premises.

JURY DEMAND

COMES NOW Plaintiffs and demand a trial by jury of all counts alleged in their Petition.

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